

## TechDirect, July 1, 2009

Welcome to TechDirect! Since the June 1 message, TechDirect gained 160 new subscribers for a total of 33,677. 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

**Computational Toxicology: Chemical Prioritization / Rapid Assay Techniques - July 7, 2009, 1:30PM-3:30PM EDT (17:30-19:30 GMT).** The Superfund Basic Research Program (SBRP), in collaboration with the US Environmental Protection Agency's Office of Superfund Remediation and Technology Innovation (OSRTI), presents the Spring/Summer 2009 edition of Risk eLearning: "Computational Toxicology: New Approaches for the 21st Century." This series of online seminars will provide an introduction to the key concepts of computational toxicology along with case studies demonstrating the utility of these approaches (e.g. high throughput screening, computer modeling, informatics) to risk assessment. Ivan Rusyn, Ph.D., Associate Professor, Department of Environmental Sciences & Engineering, University of North Carolina at Chapel Hill, will highlight the tools and techniques that enable pathway-based toxicity testing and considers the challenges and opportunities that new science brings to the practice of toxicology. For the second presentation Richard Judson, Ph.D., Bioinformatician, National Center for Computational Toxicology, U.S. EPA, will give an overview of ACToR. ACToR (Aggregated Computational Toxicology Resource) is a collection of databases collated or developed by the US EPA National Center for Computational Toxicology (NCCT). For more information and to register, see <http://clu-in.org/live> .

**ITRC Quality Considerations for Munitions Response Projects - July 14, 2009, 2:00PM-4:15PM EDT (18:00-20:15 GMT).** This training introduces state regulators, environmental consultants, site owners, and community stakeholders to Quality Considerations for Munitions Response Projects (UXO-5, 2008), created by the ITRC's Unexploded Ordnance Team. In this document, quality is defined as "conformance to requirements." To manage quality, the quality requirements of the project must first be understood. Requirements must be precisely stated and clearly understood by everyone involved. A plan is then put in place to meet those requirements. The UXO Team emphasizes taking a whole-system approach to designing, planning and managing a munitions response (MR) project to optimize quality. This training course is intended for an intermediate audience and assumes a basic understanding of specialized processes associated with MR projects. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

**ITRC Survey of Munitions Response Technologies - July 16, 2009, 11:00AM-1:00PM EDT (15:00-17:00 GMT).** This training introduces Survey of Munitions Response Technologies (UXO-4, 2006), created by the ITRC's Unexploded Ordinance Team in partnership with the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). The document provides an overview of the current status of commercially-available technologies in common usage for munitions response actions, and, where possible, assess and quantify their performance capabilities. This training course is intended for an intermediate to advanced audience and assumes an understanding of technologies and phases of munitions response. This training course focuses on the major take-home conclusions of the Survey of Munitions Response Technologies (UXO-4, 2006) and provides an understanding of the performance capabilities of available technologies under real-world site conditions. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

**Superfund Redevelopment Initiative (SRI) 10th Anniversary: Celebrating Success - July 16, 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> .

**ITRC Perchlorate Remediation Technologies - July 23, 2009, 11:00AM-1:15PM EDT (15:00-17:15 GMT).** This training introduces state regulators, environmental consultants, site owners, and community stakeholders to Remediation Technologies for Perchlorate Contamination in Water and Soil (PERC-2, 2008), created by ITRC's Perchlorate Team to assist reviewers in assessing the adequacy of perchlorate remediation projects. This course gives the student a background in the available remediation technologies to treat perchlorate contamination, discusses emerging technologies, and presents case studies of applications. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

**Triad Month Seminar Series - August 4, 6, 11, 13, 18, 20, 25.** A little over a year ago, over 260 individuals gathered from the U.S. and abroad at UMass-Amherst in Massachusetts to discuss the use of the Triad Approach to conduct investigations and remedial actions faster, better, and at a reduced cost. The Triad Community of Practice (CoP) has will redeliver updates of several of the same sessions to benefit the greater CLU-IN audience that either may not have been able to attend the conference, or were not able to attend a specific presentation while at the conference. By doing this, the Triad CoP hopes participants can learn more about some of the Triad tools and how they have been applied by the environmental industry. For more information and to register, see <http://clu-in.org/live> .

**ITRC Decontamination and Decommissioning of Radiologically-Contaminated Facilities - August 4, 2009, 2:00PM-4:15PM EDT (18:00-20:15 GMT).** This training introduces ITRC's Technical/Regulatory Guidance, Decontamination and Decommissioning of Radiologically-Contaminated Facilities (RAD-5, 2008), created by ITRC's Radionuclides Team. The curriculum is composed of four modules: Introduction and Regulatory Basis for Decontamination and Decommissioning (D&D), Factors for Implementing D&D, Preliminary Remediation Goal (PRG) Calculators, and Case Studies and Lessons Learned. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

## > New Documents and Web Resources

**Petroleum Brownfields Web Site.** EPA's new petroleum brownfields web site is designed to make information more accessible for those working to foster the cleanup and reuse of petroleum-impacted properties. It provides easy access to information that both new users and those familiar with brownfields will find useful. For instance, the Web site provides access to: "how to" guides, ways to find petroleum brownfields sites, assessment and cleanup information, financial guides and EPA Brownfields program and grants information, public/private partnership information, and sustainability and petroleum brownfields. More information at

<http://www.epa.gov/oust/petroleumbrownfields/> .

**Petroleum Brownfields: Developing Inventories (EPA 510-R-09-002).** This publication is intended as a tool to help states, tribes, EPA Brownfields Assessment grant recipients, and others develop an inventory of relatively low-risk, petroleum-contaminated brownfield properties. The publication has three sections. Section I identifies petroleum brownfields inventories as a tool for building and promoting a brownfields program. Section II outlines considerations for building an inventory, and Section III discusses best practices from stakeholders that have implemented a petroleum brownfields inventory (May 2009, 34 pages). View or download at <http://www.epa.gov/oust/pubs/pbfdevelopinventories.pdf> .

### **EPA Dataset/Databases for Ecological Risk Assessment of Contaminated Sites.**

To assess the potential for risk from contaminated sediments and to help determine contamination levels for remedial designs, EPA's Land Research Program has developed several ecological risk assessment tools including: 1) Biota-Sediment Accumulation Factor Data Set, which can be used to evaluate the transfer of chemicals from sediments into the aquatic food chain; 2) PCB Residue Effects (PCBRes) Database, an abundance of information for risk assessors to use for correlating polychlorinated biphenyls (PCBs) and other dioxin-like compound residues with toxic effects and developing Toxicity Reference Values (TRVs); and 3) ECOTOX Database, for use when risk assessors and managers need to develop TRVs for sediment sites that have contaminants other than, or in addition to, PCBs and dioxins and provides ready access to single-chemical toxicity information for aquatic and terrestrial life.

Each of these tools facilitate a scientifically defensible risk assessment, improve the decision-making ability of risk managers at Superfund and other contaminated sites, and facilitate successful remediation efforts. More information at

BSAF: [http://www.epa.gov/med/Prods\\_Pubs/bsaf.htm](http://www.epa.gov/med/Prods_Pubs/bsaf.htm)

ECOTOX: <http://www.epa.gov/ecotox>

PCB Residue Effects: [http://www.epa.gov/med/Prods\\_Pubs/pcbres.htm](http://www.epa.gov/med/Prods_Pubs/pcbres.htm)

### **Site Characterization to Support Use of Monitored Natural Attenuation for Remediation of Inorganic Contaminants in Ground Water (EPA 600-R-08-114).**

This Issue Paper highlights at what stage of the process solid-phase characterization techniques need to be implemented during site characterization and describes two case studies (one site affected by arsenic, lead, and chromium, and the other by uranium) where the results of these techniques were critical to evaluation of MNA as a potential component of ground-water cleanup (November 2008, 16 pages). View or download at <http://www.epa.gov/nrmrl/pubs/600r08114/600r08114.pdf> .

**Comparison of Pumped and Diffusion Sampling Methods to Monitor Concentrations of Perchlorate and Explosive Compounds in Ground Water, Camp Edwards, Cape Cod, Massachusetts, 2004-05.** Comparison of the concentrations of perchlorate, RDX, and HMX in diffusion samplers placed in wells against concentrations in samples collected by low-flow pumped sampling indicates

generally good agreement between the pumped and diffusion samples for concentrations of the subject contaminants. The concentration differences indicate no systematic bias related to contaminant type or concentration level (September 2008, 26 pages). View or download at <http://pubs.usgs.gov/sir/2008/5109/> .

**SUBR:IM (Sustainable Urban Brownfield Regeneration: Integrated Management) -**

**An Overview.** In July 2003, the SUBR:IM (Sustainable Urban Brownfield Regeneration: Integrated Management) consortium began its research into brownfield regeneration in the aftermath of the UK government's publication of its Sustainable Communities Plan (2003). With the completion of the project in 2007, brownfield regeneration now occupies even greater importance in national policy debates. Despite being an academically-based research project, we worked closely with many in the brownfield community and were keen to put the research outcomes into forms more accessible to practitioners. To this end, we have produced a series of 12 bulletins, published and circulated by Contaminated Land: Applications in Real Environments (CL:AIRE) (April 2009, 2 pages). View or download at

[http://www.claire.co.uk/index.php?option=com\\_docman&task=doc\\_details&qid=381&Itemid=25](http://www.claire.co.uk/index.php?option=com_docman&task=doc_details&qid=381&Itemid=25) .

**Incentives for Greener Cleanups.** The mission of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Greener Cleanups Task Force is to facilitate cleanup decisions that increase net environmental benefits of remediation and contribute to site sustainability. To achieve this mission the Task Force identified nine initiatives that it believes will incentivize entities to employ greener remediation approaches at underground storage tank, Brownfields, Federal Facility, RCRA, Superfund, and State site cleanups. Greener practices can be perceived as costly, time consuming, and less certain in their outcomes than conventional remediation. To overcome these perceptions, incentives are needed for parties who perform site cleanups and the regulatory oversight agencies that oversee these activities (June 2009, 17 pages). View or download at

[http://astswmo.org/files/resources/greenercleanups/GCTF\\_Incentives\\_Paper\\_6-25-09.pdf](http://astswmo.org/files/resources/greenercleanups/GCTF_Incentives_Paper_6-25-09.pdf) .

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 43 resources, events projects and news items were added to EUGRIS 1 - 24 June, 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:

**Sustainable Remediation Forum UK (SuRF-UK) Web site.** SuRF UK is the United Kingdom's Sustainable Remediation Forum an initiative set up to progress the UK understanding of sustainable remediation. The objectives of SuRF UK are to develop a framework in order to embed balanced decision making in the selection of the remediation strategy to address land contamination as an integral part of sustainable development. View at <http://www.claire.co.uk/surfuk> .

**Environment Agency of England and Wales - CLEA Publications Web Page.** This web site lists the contaminated land risk assessment publications issued as guidance by the Environment Agency, including compilations of toxicological data, reports on soil guideline values and supporting technical reports. View at

<http://www.environment-agency.gov.uk/research/planning/33722.aspx> .

**> Conferences and Symposia**

**Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP): New Practical Training on MARLAP Part I, Dallas, TX on July 28-30 and Philadelphia, CA on August 18-20.** MARLAP Part I is intended for planners and managers of radioanalytical projects and laboratory personnel who support them. Part I provides the basic framework of the directed planning process, including project planning, key issues to be considered during the development of analytical protocol specifications, developing measurement quality objectives, understanding the qualitative and quantitative components of method uncertainty, project planning documents and their significance, obtaining laboratory services, selecting and applying analytical methods, evaluating methods and laboratories, verifying and validating radiochemical data, and assessing data quality. This three-day course will cover all aspects of radiochemical project planning and will provide practical examples, exercises, and case studies. The course will conclude with a comprehensive exercise where participants will apply what they learned to evaluate indoor and ambient air quality following the release of Am-241 from a radiological dispersion device (RDD, or "dirty bomb"). For more information and to register, see <http://www.trainex.org/marlap>.

**Environmental Measurement Symposium, San Antonio, TX, August 10-14, 2009.**

The Environmental Measurement Symposium, for the third year, is the combined meetings of the National Environmental Monitoring Conference (NEMC) and the Forum on Laboratory Accreditation (the Forum). The 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. The Forum consists of meetings of a number of committees of The NELAC Institute (TNI) and mentor sessions targeted to folks wanting to know more about accreditation. The 2009 Symposium will include keynote speakers on the San Antonio River Authority, Developmental Lifecycle of Commercial Laboratory Instrumentation, Pharmaceuticals in Water, and Health Effects of Exposure to Metallic Species. There will be technical breakout sessions that cover such topics as innovative approaches for analyzing conventional and emerging pollutants; air methods; contaminated sediments; data usability; inorganic and organic methods; international issues in monitoring; and others. There will be two featured plenary sessions on Wednesday that cover a global perspective on the environmental landscape and nanotechnology. For more information, please visit <http://www.nemc.us> or <http://www.nelac-institute.org>.

**Call for Abstracts! Nanotechnology for Environmental Cleanup and Pollution**

**Control symposium, Northern CA, November 3, 2009.** The Groundwater Resources Association of California (GRA) seeks abstracts by August 1st, 2009 for presentations at this symposium in Northern California. The symposium is co-sponsored by the California EPA / Department of Toxics Substances Control and several other organizations. GRA seeks to provide a forum for leading nano researchers, practitioners, and nano policy and regulatory experts to share and express the latest research findings, case studies, and regulatory issues of nanotechnology. The focus of this symposium will be on the application of nanotechnology for groundwater remediation, surface water treatment and pollution control. Experts from academia, consulting, and regulatory agencies will participate in the moderated speaker sessions and poster sessions. The combination of invited speakers and experts from key areas, along with talks chosen from submitted abstracts, will make this an important event for all professionals interested in the environmental application of nanotechnology. For more information at <http://www.grac.org/nanotech.asp>.

**Poster Gallery & Competition Ideas! 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 on submitting poster gallery and competition ideas, see

<http://www.brownfieldsconference.org/en/Page.Poster.Gallery2009.aspx> .

**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 129 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](mailto: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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