TechDirect, August 1, 2015

Welcome to TechDirect! Since the July 1 message, TechDirect gained 289 new subscribers for a total of 35,103. 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

SRI Webinar Series: Potentially Responsible Party (PRP) Perspectives on Superfund Site Reuse - August 13, 2015, 2:00PM-4:00PM EDT (18:00-20:00 GMT). A potentially responsible party, or PRP, is an individual or company that is potentially responsible for contamination problems at a Superfund site. Whenever possible, EPA requires PRPs to clean up hazardous waste sites the PRP may have contaminated. Many PRPs not only perform the cleanup, but also seek ways to return the site to beneficial use for the community and maximize the extent of land use on the site. Presenters on this webinar will include representatives from several PRP groups who have taken an active role in facilitating the beneficial use of sites they manage and who have worked collaboratively with EPA over many years to ensure that both the cleanup and the reuse of the property remain protective of human health and the environment. For more information and to register, see http://clu-in.org/live.

ITRC Issues and Options in Human Health Risk Assessment - A Resource When Alternatives to Default Parameters and Scenarios are Proposed - August 20, 2015, 1:00PM-3:15PM EDT (17:00-19:15 GMT). After participating in this ITRC training course, the learner will be able to apply ITRC's Decision Making at Contaminated Sites: Issues and Options in Human Health Risk (RISK-3, 2015) document when developing or reviewing site-specific risk assessments by: identifying common issues encountered when alternatives to default parameters and scenarios are proposed during the planning, data evaluation, toxicity, exposure assessment, and risk characterization and providing possible options for addressing these issues; recognizing the value of proper planning and the role of stakeholders in the development and review of risk assessments; and providing information (that includes links to additional resources and tools) to support decision making when alternatives to default approaches, scenarios and parameters are proposed. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/live.

Progress in Research: TCE, PCBs, and Phthalates - Exposure, Mechanisms of Disease, and Clean-Up Remedies - August 24, 2015, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This Superfund Research Program (SRP) Progress in Research webinar series highlights promising research from two SRP Centers. Researchers at the Northeastern University SRP Center are studying chlorinated solvents and phthalates, contaminants that could be linked to high preterm birthrates in Puerto Rico.

The University of Kentucky SRP Center explores how nutrition and exercise might offer protection from polychlorinated biphenyl (PCB) toxicity and are developing new sustainable remediation approaches using nanotechnology. For more information and to register, see http://clu-in.org/live.

Analytical Chemistry Data Review - Volatile Organics Data - August 26, 2015, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This webinar will cover review and validation of Volatile Organics data. In this webinar, the instructor will discuss the data quality requirements of the EPA methods for waste (solid, liquid), including Methods 8260 and 8015, along with preparation methods 5030, 5031, 5032, and 5035. The data review process and documentation will be discussed using the 2014 National Functional Guidelines for Superfund Organic Methods Data Review. Participants will be asked to review a data package prior to the live webinar. For more information and to register, see http://clu-in.org/live.

ITRC Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management - August 27, 2015, 1:00PM-3:15PM EDT (17:00-19:15 GMT). Chemical contaminants in soil and groundwater can volatilize into soil gas and migrate through unsaturated soils of the vadose zone. Vapor intrusion (VI) occurs when these vapors migrate upward into overlying buildings through cracks and gaps in the building floors, foundations, and utility conduits, and contaminate indoor air. If present at sufficiently high concentrations, these vapors may present a threat to the health and safety of building occupants. Petroleum vapor intrusion (PVI) is a subset of VI and is the process by which volatile petroleum hydrocarbons (PHCs) released as vapors from light nonaqueous phase liquids (LNAPL), petroleum-contaminated soils, or petroleum-contaminated groundwater migrate through the vadose zone and into overlying buildings. The ITRC Technical and Regulatory Guidance Web-Based Document, Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management (PVI-1, 2014) and this associated Internet-based training provides regulators and practitioners with consensus information based on empirical data and recent research to support PVI decision making under different regulatory frameworks. The PVI assessment strategy described in this guidance document enables confident decision making that protects human health for various types of petroleum sites and multiple PHC compounds. This guidance provides a comprehensive methodology for screening, investigating, and managing potential PVI sites and is intended to promote the efficient use of resources and increase confidence in decision making when evaluating the potential for vapor intrusion at petroleum-contaminated sites. By using the ITRC guidance document, the vapor intrusion pathway can be eliminated from further investigation at many sites where soil or groundwater is contaminated with petroleum hydrocarbons or where LNAPL is present. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/live.

ITRC Groundwater Statistics for Environmental Project Managers - September 3, 2015, 1:00PM-3:15PM EDT (17:00-19:15 GMT). Statistical techniques may be used throughout the process of cleaning up contaminated groundwater. It is challenging for practitioners, who are not experts in statistics, to interpret, and use statistical techniques. ITRC developed the Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training specifically for environmental project managers who review or use statistical calculations for reports, who make recommendations or decisions based on statistics, or who need to demonstrate compliance for groundwater projects. The training class will encourage and support project managers and others who are not statisticians to: use the ITRC Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) to make better decisions for projects; apply key aspects of the statistical approach to groundwater data; and answer common questions on background, compliance, trend analysis, and monitoring optimization. ITRC's Technical and Regulatory Web-based Guidance on

Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training bring clarity to the planning, implementation, and communication of groundwater statistical methods and should lead to greater confidence and transparency in the use of groundwater statistics for site management. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/live.

> New Documents and Web Resources

SRP Research Brief 247: PCE in Drinking Water Linked to Cancer and Epilepsy. Early-life exposure to tetrachloroethylene (PCE; perchloroethylene) in drinking water may increase the risk of epilepsy and certain types of cancer into adulthood, according to Boston University Superfund Research Program (BU SRP) Center researchers. PCE is a solvent frequently used in dry cleaning solutions, adhesives, metal degreasers, and other commercial products. For more information, see http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=247. 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.

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:

- Guidance for Communicating Vapor Intrusion at Environmental Restoration Sites
- Technical Memorandum: Rationale and Efficacy of Amending Soils with Phosphate as Means to Mitigate Soil Lead Hazard
- Toolkit for Identifying Applicable or Relevant and Appropriate Requirements (ARARS)
- B&L Woodwaste Site, Pierce County, Washington: Phase 2 In Situ Pilot Study Monitoring Report
- Study to Identify BATEA for the Management and Control of Effluent Quality from Mines

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 18 resources, events, projects and news items were added to EUGRIS in July 2015. 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:

Evaluation of Expenditure and Jobs for Addressing Soil Contamination in Member States (European Commission - Directorate-General Environment, 2013). The soil remediation market suffers from an important lack of reliable and consistent information at European level. This study was prepared including information regarding soil remediation legislation, market and trends. View or download at http://ec.europa.eu/environment/soil/pdf/Soil_contamination_expenditure_jobs.pdf .

> Conferences and Symposia

Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management - ITRC 2-day Classroom Training, Raleigh (area), NC, August 31 -

September 1, 2015. This 2-day ITRC classroom training is based on the ITRC Technical and Regulatory Guidance Web-Based Document, Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management (PVI-1, 2014) and led by internationally recognized experts. The class will enable you to develop on-the-job skills to screen-out petroleum sites based on the scientifically-supported ITRC strategy and checklist; focus the limited resources investigating those PVI sites that truly represent an unacceptable risk; communicate ITRC PVI strategy and justify science-based decisions to management, clients, and the public; understand the essential principles of biodegradation and the fundamentals of vapor movement through the vadose zone; and appreciate the important role of modeling in the investigation of petroleum sites. Interactive learning with classroom exercises and Q&A sessions will reinforce these course learning objectives. You will also have the opportunity to network with other environmental professionals. 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.

2015 National Brownfields Training Conference, Chicago, IL, September 2-4, 2015. Brownfields 2015 promises something for all levels of stakeholders and practitioners. The conference program includes speakers, discussions, mobile workshops, films, and other learning formats that are calibrated to provide you with case study examples, program updates, and useful strategies for meeting your brownfield challenges head on. For more information and to register, see http://www.brownfieldsconference.org/en/registerinfo.

LNAPLs: Science, Management, and Technology - ITRC 2-day Classroom Training, Seattle (area), WA, September 15-16, 2015; Austin, TX, November 18-19, 2015. 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.

2015 NGWA Conference on Groundwater in Fractured Rock, Burlington, VT, September 28-29, 2015. USGS researchers and other presenters will share a synopsis on the use of innovative techniques, cutting-edge research, and lessons learned from practical experience regarding characterizing and remediating groundwater in fractured rock environments during this National Ground Water Association (NGWA) conference. For more information and to register, see http://www.ngwa.org/Events-Education/conferences/Pages/5017sep15.aspx.

13th HCH & Pesticides Forum, Zaragoza, Spain, November 3-6, 2015. This three day forum will focus of the lessons learned from the legacy of the lindane production in Spain. For more information and to register, http://www.hchforum.com/.

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. To unsubscribe, send a blank email to $subst('Email.UnSub'). 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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