



TechDirect, March 1, 2024

Welcome to TechDirect! Since the February 1 message, TechDirect gained 64 new subscribers for a total of 43,858. 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

In Vitro Bioaccessibility Assay (IVBA) Sampling Guidance Update - Part 2 Applying RBA Data to Human Health Risk Assessment - March 1, 2024, 1:00PM-2:30PM EST (18:00-19:30 GMT). The Technical Review Workgroup (TRW) Bioavailability Committee recently published the "Guidance for Sample Collection for In Vitro Bioaccessibility Assay for Arsenic and Lead in Soil and Applications of Relative Bioavailability Data in Human Health Risk Assessment." This is an update to the 2015 Guidance for Sample Collection for In Vitro Bioaccessibility Assay for Lead (Pb) in Soil. The update is intended to help EPA risk assessors, remedial project managers, and on-scene coordinators develop and use bioavailability data at their sites. It incorporates sample planning and data analysis recommendations from EPA's Guidance on Systematic Planning Using the Data Quality Objectives Process that are pertinent to sampling for In Vitro Bioaccessibility (IVBA) and Relative Bioavailability (RBA). It also clarifies the application of IVBA and RBA data to human health risk assessment, the development of risk-based goals at CERCLA remedial and removal sites and includes arsenic (As) which was recently added to the In Vitro Bioaccessibility Assay. For more information and to register, see <https://www.clu-in.org/live>.

ITRC 1,4-Dioxane: Science, Characterization & Analysis, and Remediation Training - March 5, 2024, 1:00PM-3:15PM EST (18:00-20:15 GMT). 1,4-Dioxane has seen widespread use as a solvent stabilizer since the 1950s. The widespread use of solvents through the 1980s suggests its presence at thousands of solvent sites in the US; however, it is not always a standard compound in typical analytical suites for hazardous waste sites, so it previously was overlooked. The U.S. EPA has classified 1,4-dioxane as "likely to be carcinogenic to humans." Some states have devised health standards or regulatory guidelines for drinking water and groundwater standards; these are often sub-part per billion values. These low standards present challenges for analysis, characterization, and remediation of 1,4-dioxane. The ITRC team created

multiple tools and documents that provide information to assist all interested stakeholders in understanding this contaminate and for making informed, educated decisions. This training is a series of six (6) modules. The six individual modules will be presented together live, and then archived on the ITRC 1,4-Dioxane training webpage for on demand listening. For more information and to register, see

<https://www.itrcweb.org> or <https://clu-in.org/live>.

ITRC Vapor Intrusion Mitigation (VIM-1) - A Two Part Series Training - March 14 and 28, 2024, 1:00PM-3:00PM EDT (17:00-19:00 GMT). When certain contaminants or hazardous substances are released into the soil or groundwater, they may volatilize into soil gas. Vapor intrusion (VI) occurs when these vapors migrate up into overlying buildings and contaminate indoor air. ITRC has previously released guidance documents focused on VI, including the "Vapor Intrusion Pathway: A Practical Guidance" (VI-1, 2007) and "Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management" (PVI, 2014). However, ITRC has received multiple requests for additional details and training on mitigation strategies for addressing this exposure pathway. The ITRC Vapor Intrusion Mitigation Team (VIMT) created ten fact sheets, 16 technology information sheets, and 4 checklists with the goal of assisting regulators during review of vapor intrusion mitigation systems, and helping contractors understand the essential elements of planning, design, implementation, and operation, maintenance and monitoring (OM&M) of mitigation systems. The Vapor Intrusion Mitigation training is a series of eight (8) modules, presented over two sessions. For more information and to register, see <https://www.itrcweb.org> or <https://clu-in.org/live>.

In Vitro Bioaccessibility Assay (IVBA) Sampling Guidance Update - Part 3 Sample Planning to Meet Site Assessment Decision Confidence Objectives - Monday, March 18, 2024, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This session will focus on a discussion of soil sample planning and data evaluation to assess confidence in site assessment and remediation decisions at soil arsenic & lead contaminated sites. EPA's new bioavailability sampling guidance tool will also be presented. This training will target a general audience of regional staff working in risk assessment, remediation, emergency response, technical support, and quality assurance. The training will be an approximately one and half hours long and will include time for general discussion. Members of the Bioavailability Committee and a Regional representative will be present to answer questions in real time. For more information and to register, see <https://www.clu-in.org/live>.

ITRC Environmental Data Management (EDM): Best Practices for Achieving and Maintaining Quality within Environmental Data Management Training - March 19, 2024, 1:00PM-2:30PM EDT (17:00-18:30 GMT). The ITRC Environmental Data Management Best Practices Team (EDMBP Team) prepared a series of guidance documents and case studies on best practices for all phases of EDM to address the need for guidance on managing large stores of environmental data. Environmental data management (EDM) is a broad field that encompasses all aspects of environmental research and regulation, from habitat studies and wildlife management plans to health advisories and remediation of hazardous waste sites. This Roundtable training is meant to lead project managers, data collectors, data managers, and data reviewers in a discussion about various aspects of environmental data quality. Are you struggling with determining the quality of your data sets and understanding if they should be used to make decisions? Do you have a hard time advocating for budget related to data quality tasks or determining how much review is necessary? Our collection of panelists will touch on these topics and more, as well as answer attendee questions related to environmental data quality. For more information and to register, see <https://www.itrcweb.org> or <https://clu-in.org/live>.

Federal Facilities Academy: Community Involvement at Federal Facilities - March 21, 2024, 1:00PM-3:00PM EDT (17:00-19:00 GMT). Community Involvement at

Federal Facilities is a two-hour webinar course that focuses on community involvement requirements, resources, and techniques available for Federal Facilities being cleaned up at National Priorities List (NPL) sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). By taking the course, participants will achieve the following objectives: Learn about community involvement requirements under CERCLA; Understand the roles of the lead federal agency and the Environmental Protection Agency (EPA) in public involvement at Federal Facilities; Discover resources and tools available for community involvement activities; Explore community involvement techniques and approaches that can be used at Superfund sites; and, Identify community involvement opportunities throughout the Superfund process at Federal Facilities. For more information and to register, see

<https://www.clu-in.org/live>.

ITRC Sustainable Resilient Remediation (SRR) Training - March 26, 2024, 1:00PM-3:15PM EDT (17:00-19:15 GMT). Extreme weather events and wildfires are increasing and impacting hazardous waste sites. The primary goal of cleanups, which is protecting human health and the environment, is undermined. Confronted with these risks, environmental professionals should assess, and design remedies that are sustainable and resilient. Sustainable resilient remediation (SRR) is an optimized solution to cleaning up and reusing a hazardous waste site that limits negative environmental impacts, maximizes social and economic benefits, and creates resilience against increasing threats. The objective of the ITRC Sustainable Resilient Remediation (SRR-1) is to provide resources and tools for regulators, stakeholders, consultants, and responsible parties to help integrate sustainable and resilient practices into remediation projects. For more information and to register, see <https://www.itrcweb.org> or

<https://www.clu-in.org/live>.

In Vitro Bioaccessibility Assay (IVBA) Sampling Guidance Update - Part 4 Soil Sampling Best Practices and Laboratory Methods to Measure IVBA & RBA - Monday, April 1, 2024, 1:00PM-2:30PM EDT (17:00-18:30 GMT). This session will focus on a discussion of soil sample collection and processing best practices and methods to directly measure relative bioavailability (RBA) or estimate RBA by measuring in vitro bioaccessibility via EPA Method 1340 at soil arsenic and lead contaminated sites. This training will target a general audience of regional staff working in risk assessment, remediation, emergency response, technical support, and quality assurance. The training will be an approximately one hour long and will include time for general discussion. Members of the Bioavailability Committee and a Regional representative will be present to answer questions in real time. For more information and to register, see <https://www.clu-in.org/live>.

> New Documents and Web Resources

Climate Adaptation Profile: Wyckoff Co/Eagle Harbor. EPA recently released a climate adaptation profile describing measures taken at the Wyckoff Co./Eagle Harbor site along Puget Sound. Remedial actions at this National Priorities List site, which includes approximately 100 acres of intertidal and subtidal sediments in Eagle Harbor, have included removing contaminated soil and sludge, demolishing buildings, and installing an engineered cap on contaminated sediments. Current activities focus on continuing to operate a groundwater pump-and-treat system and building a perimeter wall along seaward portions of the site's former wood-treating areas. The site is vulnerable to sea level rise, which is projected to increase by one foot by 2060, and to erosion in the intertidal areas. Climate adaptation measures incorporated into the perimeter wall design include armoring the wall with marine-grade, cast-in-place

concrete that will extend at least six feet below the beach elevation. Additionally, the design of an anticipated upland cap uses a high-rate scenario for sea level rise, based on 2015-2070 projections. A bioswale-retention pond will be constructed to collect and transmit stormwater away from the upland cap, with sufficient capacity to convey stormwater resulting from 25-year, 24-hour storm events and to retain stormwater from a 100-year storm event. To view, please visit

<https://www.epa.gov/superfund/climate-adaptation-profile-wyckoff-eagle-harbor>

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 <https://www.clu-in.org/products/tins/>. The following resources were included in recent issues:

- Multi-Laboratory Validation Study for Analysis of PFAS by EPA Draft Method 1633
- Technology Guidance For Sentinel™ Passive PFAS Samplers Osorb® Media Use in PFAS Passive Samplers
- Market Research Study: PFAS in Wastewater

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than three resources, events, projects and news items were added to EUGRIS in February 2024. 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

Design and Construction Issues at Hazardous Waste Sites (East), April 10-12, 2024, Philadelphia, PA. The Society of American Military Engineers organizes this annual conference to share information about applications of engineering and science associated with cleaning up hazardous waste sites. The conference panels focus on case studies, advances in processes such as remedy optimization, and emerging issues such as PFAS contamination. For more information, please visit <https://sites.google.com/samephiladelphiaipost.org/dchws/home>

ITRC Annual Meeting, April 8-11, 2024, Long Beach, CA. Environmental professionals from the state, tribal and federal government, private sector, and stakeholder groups come to ITRC's Annual Meeting to collaborate on critical environmental topics and guidance. For more information, please visit <https://itrcweb.org/itrcwebsite/events/2024-annual-meeting>

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 (202) 566-0832 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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