U.S. ENVIRONMENTAL PROTECTION AGENCY



TechDirect, January 1, 2025

Happy Holidays and may you have a prosperous new year!



Welcome to TechDirect! Since the December 1 message, TechDirect gained 48 new subscribers for a total of 44,055. 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.

> New ITRC 2025 Project Teams

Interstate Technology Regulatory Council (ITRC) Project Teams to start in 2025. Four new ITRC) Project Teams will start in 2025. Green and Sustainable Chemistry, Sustainable Management of Waste from Energy Resources, and Underwater Munition Teams will start in January 2025 and are currently open for membership. The Advanced Site Characterization Tools - Update Team will start in the Spring 2025. Membership in ITRC project Teams is free to any government employee in the U.S. and around the world, academics, and public stakeholders. Private sector employees may also participate by joining the ITRC Industry Affiliates Program. For more information, see https://itrcweb.org/project-teams/

> Upcoming Live Internet Seminars

Thermal Remediation of NAPLs - Tuesday, January 7, 2025, 1:00PM-2:30PM EST (18:00-19:30 GMT). Thermal technologies are some of the only remedial technologies that can readily address NAPL contaminants. This presentation will describe the thermal technologies that are commonly used today, and the types of contaminants and hydrogeologic conditions for which they are applicable. For more information and to register, see https://www.clu-in.org/live.

Challenges Met: Case Studies of Thermal Remediation - Wednesday, January 8, 2025, 1:00PM-2:30PM EST (18:00-19:30 GMT). Thermal remediation technologies

became commercially available in the early 2000s, and since then have been used successfully to remediate a wide variety of contaminated sites. This presentation will discuss several case studies of some of the more challenging Superfund sites that have been remediated with thermal technologies, and how challenges were overcome. For more information and to register, see https://www.clu-in.org/live.

ITRC: Overview of the Tire-Derived Chemicals 6PPD & 6PPD-quinone Training - Tuesday, January 14, 2025, 1:00PM-3:00PM EST (18:00-20:00 GMT). This training course provides a basic overview of the science and policy measures surrounding the Tire Anti-Degradants 6PPD and 6PPD-q. Attendees will gain insight into the current state of knowledge on topics such as: background and use of 6PPD in tires, toxicity in aquatic species and humans; occurrence, fate, and transport; measuring, mapping, and sampling; mitigation measures; and policy, regulations, and laws. For more information and to register, see https://www.itrcweb.org or <a href="https:

ITRC: Contaminants of Emerging Concern (CEC) Identification Framework Training - Thursday, January 16, 2025, 1:00PM-3:00PM EST (18:00-20:00 GMT). In 2023, the ITRC Contaminants of Emerging Concern (CEC) Framework was published to help environmental regulatory agencies and other stakeholders identify, evaluate, and manage CEC's while acknowledging uncertainties in their environmental fate and transport, receptor exposure, and/or toxicity. The framework is meant to help environmental regulatory agencies and other stakeholders by providing examples of CEC monitoring programs and guiding the user through the process of identifying CEC key characteristics, how to communicate real and perceived risk from CEC to the public, and how laboratory analytical methods can be used in the identification process. This ITRC CEC training presents this entirely new framework for identification, prioritization, and communication of CEC. For more information and to register, see https://www.itrcweb.org or https://www.itrcweb.org or https://www.itrcweb.org or https://www.clu-in.org/live.

Climate Adaptation in PCB Approvals: Open To The Public - Wednesday, January 22. 2024. 1:30PM-3:30PM EST (18:30-20:30 GMT). The U.S. Environmental Protection Agency's Office of Resource Conservation and Recovery (ORCR) is hosting a training open to the public on integrating climate change adaptation into the PCB approval process. The training will outline EPA's approach on when/how to consider potential adverse climate and natural disaster impacts in the PCB cleanup, storage, treatment, and/or disposal approval process; advance understanding of the legal and regulatory frameworks for considering resilience, including the need for a climate and disaster vulnerability screening and/or assessment; explore practical tools and case studies for conducting climate and disaster vulnerability screening screenings/assessments and enhancing the resilience of PCB sites/facilities; and identify resilience strategies which seek to provide long-term resilience to potential adverse climate and natural disaster risks into the future. This virtual event will feature case studies and discussion to help participants engage with best practices for building climate resilience in PCB cleanup approvals and through the PCBs permitting process. For more information and to register, see https://www.trainex.org/ClimateAdaptation-External/.

ITRC: PFAS Introductory Training - Tuesday, January 28, 2025, 1:00PM-3:00PM EST (18:00-20:00 GMT). This training will include emerging science on PFAS, including topics such as Properties of PFAS, Fate and Transport, Sampling and Analysis, and Treatment Technologies. The technical presentations will be focused on those who are relatively new to PFAS. The training will last approximately 90 minutes and include time for questions. For more information and to register, see https://www.itrcweb.org OF https://www.clu-in.org/live.

ITRC: Introduction to Hydrocarbons Training - Thursday, January 30, 2025, 1:00PM-3:00PM EST (18:00-20:00 GMT). This class is designed to provide a basic overview of hydrocarbon behavior in the subsurface and how to scientifically assess

concerns arising from the release of petroleum products into the environment. It will highlight key issues that help identify and manage TPH, LNAPL, and PVI risks together. For more information and to register, see https://www.itrcweb.org or <a href="ht

> New Documents and Web Resources

Research Brief 360: Combining Plants and Sunlight to Break Down Hazardous Compounds. Researchers funded by the NIEHS Superfund Research Program designed a new material that effectively degrades harmful compounds, like PFAS, and bacteria. By combining the power of sunlight and a component of plants, called lignin, this approach harnesses sustainable and renewable resources to reduce exposures and protect health. For more information, please visit https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=360

NIEHS SBIR Grant for Water Treatment Technology To Destroy PFAS On-site.

The PFAS-destruction technology supported by this Small Business Innovative Research (SBIR) grant is called micelle-accelerated photoactivated reductive defluorination in which PFAS particles are trapped in structures known as micelles. When these micelles are exposed to ultraviolet light, they generate a highly reactive electron, which breaks the carbon-fluoride bonds in the PFAS particles leaving environmentally benign by-products that can be released to wastewater treatment plants. For more information, please visit https://factor.niehs.nih.gov/2024/11/feature/1-feature-pfas

NAVFAC Fact Sheet: The Benefits of One-Pass Advanced Geophysical Classification in the Cleanup of Department of Defense Facilities (November 2024). This document has been prepared on one-pass advanced geophysical classification (AGC) as a tool to support investigation, decision-making, and cleanup of munitions. When AGC use began in the early 2010s, classification of munitions items was a two-step process. Recent innovations have led to AGC sensors and software that allow classification in a single dynamic survey (often referred to as a "one-pass" survey). This allows the achievement of the same results, while reducing the time and expense of the classification process. One-pass AGC can significantly reduce the costs of site characterization and cleanup as the number of excavations is reduced, and classification no longer requires two separate geophysical surveys. To view or download, please visit: <a href="https://exwc.navfac.navv.mil/Portals/88/Documents/EXWC/Restoration/erpdfs/o/Final%20One-Pass-AGC-Fact Sheet Sep2024.pdf?ver=OG2NAbYVQRiX6QVL6yalg%3d%3d

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

 Incorporating Matrix Diffusion in the New MODFLOW Flow and Transport Model for Unstructured Grids User Guide

> Conferences and Symposia

2025 Federal Environmental Symposium, March 31 - April 2, 2025, Bethesda, MD. The Symposium, hosted by the National Institutes of Health (NIH), will be both an in-person and virtual gathering of federal agencies to provide existing and relevant environmental information to Federal representatives. This event was first offered in 2002 and hosted at the NIH facility. The main purpose is to encourage partnerships, sharing of information, and best practices amongst Federal facilities. NIH will once again host the symposium virtually via MS Teams videoconferencing platform. This year's theme for the Symposium "Supporting the Mission Through Environmental Compliance" focuses on the sharing of best practices, success stories, partnerships, and challenges and achievements of the federal practitioner community as they apply to your Agency's mission. The symposium is also expected to bring together federal agencies and their partnering organizations to provide existing and relevant environmental policy perspectives. To learn more and register, please visit https://www.fedcenter.gov/calendar/conferences/symposium2025/.

2025 ITRC Annual Meeting - 30th Anniversary, April 7-10, 2025 Kansas City, MO. Come celebrate ITRC's 30th Anniversary! ITRC is hosting their 2025 Annual Meeting in Kansas City, Missouri. Join the ITRC Project Teams for working sessions, participate in their welcome reception and plenary sessions, and network with the entire ITRC community and partners. To learn more and register, please visit https://itrcweb.org/2025-annual-meeting/.

Call for Ideas and Save the Date! 2025 National Brownfields Training Conference, August 5-8, 2025, Chicago, IL. The National Brownfields Training Conference is the largest event in the nation focused on environmental revitalization and economic redevelopment. Held every two years, the National Brownfields Conference attracts over 2,000 stakeholders in brownfields redevelopment and cleanup to share knowledge about sustainable reuse and celebrate the EPA brownfields program's success. The Call for Ideas is open through January 13, 2025 for the August 2025 Conference. To submit an idea for the conference, please visit https://gobrownfields.org/call-for-ideas/

Call for Abstracts! 2025 Environmental Measurement Symposium, August 4-8, 2025, St Louis, MO. Organized by The NELAC Institute (TNI), the 2025 Environmental Measurement Symposium is a combined meeting of the National Environmental Monitoring Conference (NEMC) and the Forum on Environmental Accreditation. It is the largest conference focused on environmental measurements in North America, and this year is planned as an in-person event for the week of August 4, 2025 in St. Louis, MO. This year's Symposium theme is Building a Quality Culture as the Foundation for Reliable Data. The NEMC Steering Committee is inviting abstracts for oral or poster presentations which are due February 7, 2025. To submit an idea for the conference, please visit https://www.envirosymposium.group/.

Save the Date! Global Summit on Environmental Remediation, November 4-6, 2025, Richland, WA. This international forum focuses on challenges, barriers, and innovative solutions for successful remediation and long-term stewardship of contaminated sites. The Global Summit is set for November 4-6, 2025, at Pacific Northwest National Laboratory in Washington state. This event is organized in cooperation with the International Atomic Energy Agency's Network of Environmental Remediation and NORM Management (ENVIRONET). For more information, please visit https://www.pnnl.gov/projects/remplex/2025-summit.

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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