U.S. ENVIRONMENTAL PROTECTION AGENCY

TechDirect, August 1, 2025

Welcome to TechDirect! Since the July 1 message, TechDirect gained 131 new subscribers for a total of 44,718. 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.

Please feel free to reply to this email or share your comments online with feedback on your utilization of the TechDirect service or recommendations for future editions.

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

RemPlex: The Hidden Costs of PFAS Remediation: Energy, Waste, and Long-Term Viability - Tuesday, August 19, 2025, 1:00PM-2:30PM EDT (18:00-19:30 GMT). PFAS management presents many complex challenges, from uncertainties about human health risks and contaminant behavior to the effectiveness of remedies and the demands of evolving regulatory frameworks. The seminar will explore the environmental footprint of treating per- and polyfluoroalkyl substances (PFAS), with discussion about the energy demands, waste generation, and broader environmental impacts of PFAS treatment technologies and insights into how these factors-alongside the regulatory context-should shape decision-making around remediation.
Co-presented by the Center for the Remediation of Complex Sites (RemPlex) and the Sustainable Remediation Forum (SURF). For more information and to register, see https://www.pnnl.gov/remplex-seminars.

Virtual Technology Fair: Heavy Metals Detection and Treatment for Water - Wednesday, August 27, 2025, 1:00PM-2:30PM EDT (17:00-18:30 GMT). The NIEHS Superfund Research Program (SRP) presents a "Virtual Technology Fair" featuring Small Business Innovative Research (SBIR) grant recipients developing innovative solutions for heavy metals in water. Speakers will give a "pitch", showcasing the work underway and its value-added to disrupt the market. We encourage participation by and questions from potential end-users, customers, and other stakeholders to accelerate technology transfer of these promising approaches. The August 27th webinar will feature ChemFinity Technologies, Inc. on "Remediation of acid mine drainage water using selective metal-harvesting membranes;" OndaVia, Inc. on "Automated, In-Line Hexavalent Chromium Analyzer;" Microvi Biotechnologies, Inc. on "Intensified, High-Rate Reductive Immobilization of Hexavalent Chromium;" Picoyune on "Plasmonic Sensor and Field Monitor for Mercury." For more information and to register,

see https://www.clu-in.org/live.

From Risk to Remedial Alternatives - MMRP Feasibility Studies - Thursday, August 28, 2025, 1:00PM-4:00PM EDT (17:00-20:00 GMT). This webinar will look at stages of the RI/FS, from RMM through the FS. Presentations will discuss how to create risk scenarios for evaluation using the Risk Management Methodology (RMM) and explain how that can influence the development of remedial alternatives by considering both contamination and land use. The presentations will look at an example site and at a case study. We will also discuss the use of "FS alternatives panels" to facilitate the development of remedial alternatives and attempt to get buy-in from various members of the project team. For more information and to register, see https://www.clu-in.org/live.

ITRC: Pump & Treat Optimization - Thursday, September 4, 2025, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This training aims to summarize existing information and best practices while also developing a systemic and adaptive optimization framework specifically for P&T well-network design and management. The primary audience for this training is environmental project decision-makers, which may include federal, state, tribal, and various local agency employees; contractors to these agencies; and potentially liable parties and their engineers and consultants as well as involved stakeholders. Generally, those involved in designing, building and operating, and optimizing pump & treat systems would benefit.The goal of the training is to provide a roadmap for optimizing a P&T system and refining the remedial strategy or shifting toward another remedial approach. Pump & Treat optimization should be systematic and data-based, and the training and document aim to provide tools and direction to assist in this rigorous process. For more information and to register, see https://www.itrcweb.org or https://www.clu-in.org/live.

> New Documents and Web Resources

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:

- Soil Gas Survey Results Supporting Groundwater Correction Action Plan (GCAP) Development for the Moab Site
- Beneficial Use of Harvested Ponded Fly Ash and Landfilled FGD Materials for High-Volume Surface Mine Reclamation
- Critical Mineral Recovery from Mine Influenced Waters - Literature Review and Technology Evaluation

Transitioning from Active Remedies to Monitored Natural Attenuation (SERDP ESTCP 2024, ER20-1429). The objective of this research is to provide an easier way for site managers to answer several specific technical questions that are important during a transition assessment, such as 1) is the plume at my site stable (and thus a good candidate for transitioning)?, 2) what is the likelihood that my site has a "persistent source" that will be resistant to further active treatment?, 3) how can I establish if performance of an active remedial technology has plateaued? and 4) what type of contaminant removal rates can I expect after transitioning to MNA? A software tool (TA2 Tool) that aids in gathering and analyzing data relevant for a site-specific transition

assessment was developed as part of this research. This free web-based tool has modules that perform quantitative assessment of concentration trends and project the remediation timeframe based on the current remedial approach. It includes modules that predict how remediation timeframes are influenced by matrix diffusion to assess if additional remediation is warranted. It also includes modules that evaluate MNA as a transition technology, specifically by looking at plume stability, natural attenuation rates, and projections of plume concentrations at a downgradient point of compliance in the absence of further active treatment. For more information, see https://serdp-estcp.mil/projects/details/350cbc0b-893a-43a6-8a0c-c9c057bacac0/er20-1429-project-overview

ContaminatedLand.info. With a focus on sustainable and risk-based land management, this platform offers information on best practices, regulatory considerations, and innovative solutions for addressing contamination challenges. To view these resources, visit https://contaminatedland.info/.

> Conferences and Symposia

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. For more information, please visit https://www.envirosymposium.group/.

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. For more information, please visit https://gobrownfields.org/.

2025 Tribal Lands and Environment Forum, August 18-21, 2025, Minneapolis, MN and Online. The Tribal Lands and Environment Forum (TLEF) is a joint effort between the Institute for Tribal Environmental Professionals (ITEP), the Tribal Waste and Response Steering Committee (TWAR SC), and US EPA's Office of Land and Emergency Management (OLEM). Topics for presentations should be related to TLEF's primary media: brownfields, underground storage tanks, Superfund sites and federal facilities, waste management and minimization, and emergency response. TLEF will also welcome proposals dealing with emerging contaminants, emerging technologies, habitat restoration, and indigenous justice in waste and response work. For more information, please visit https://sites.google.com/view/tlef2025/home.

RemTech Europe 2025, September 15-19, 2025, Ferrara, Italy. RemTech Europe is an international conference on land and water remediation, environmental sustainability, and emerging technologies. The event will take place from September 15 to 19, 2025, with both in person and online participation options. Several short courses will be offered such as

- PFAS Introductory Training (ITRC) https://forms.gle/TC4rxmvkACBQvcPx8
- Pump & Treat Optimization (ITRC) https://forms.gle/mNo41mcmAtuPbRui8
- Safe and efficient reuse of wastewater (DSTC, RIVM) https://forms.gle/5RsZN6ya1n95aqUr8

- Sustainable Materials Reuse (CL:AIRE) https://forms.gle/m1Rw4yT9Po6vbgsk8
- Soil Passports for Demonstrating Circular Economy in Soil Reuse (CL:AIRE) https://forms.gle/1J6ApxEnUrUdiuEE9

For more information, please visit https://remtechexpo.com/remtech-europe/.

U.S EPA and Risk Assessment Information System (RAIS) Screening Level Calculator Training for Chemical and Radionuclide Risk Analysis, September 22-25, 2025, Oak Ridge, Tennessee. This training will primarily provide the participant with operational knowledge of key EPA and RAIS calculators. Additionally, the training and exercises will delve into the ability of the calculators to address site-specific exposures, unique toxicity assessments, and complex risk characterizations. Registration is open and spaces are limited for this popular class. In addition to classroom activities, tours are given of the Spallation Neutron Source facility, the High Flux Isotope Reactor, Frontier (ORNL's exascale supercomputer), and the Historic Graphite Reactor from the Manhattan Project. For more information, please visit https://rais.ornl.gov/home/fall2025.html

6th ENSOr Workshop: Managing Emerging Contaminants for healthy soils: Are we ready?!, October 13-14, 2025, Brussels, Belgium. EmConSoil, OVAM's multi-stakeholder network on emerging soil contaminants, is excited to announce the call for abstracts for its upcoming workshop which will center around the evolving issue of emerging contaminants in soil and groundwater. The goal is to share knowledge, foster dialogue, and explore innovative approaches.
For more information, please visit http://www.emconsoil.eu/.

Design and Construction Issues at Hazardous Waste Sites (DCHWS West), November 3-5, 2025, Denver, CO. The US EPA and Society of American Military Engineers (SAME) co-sponsor the DCHWS West which will be held in Denver, Colorado. The applications of engineering and science associated with cleaning up hazardous waste sites continue to evolve rapidly. The event's primary goal is to facilitate an interactive engagement between professionals from government and the private sector related to relevant and topical issues. For more information, please visit https://sites.google.com/samephiladelphiapost.org/dchws/west-symposium/fall-2025-dchws.

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.

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