



Welcome to TechDirect! Since the November 1 message, TechDirect gained 53 new subscribers for a total of 44,032. 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

FRTC Presents ... TRAC - A Tool for Tracking Groundwater Restoration Across Multiple Sites - Wednesday, December 4, 2024, 1:00PM-2:00PM EST (18:00-19:00 GMT). Tracking Restoration And Closure (TRAC) is a web-based application that combines infographics, annual statistics, and historical facts to clearly communicate the current status of groundwater contamination cleanup efforts at Department of Energy Office of Environmental Management (DOE-EM) sites across the nation. TRAC is a tool to share information about and provide transparency into environmental remediation progress at these cleanup sites. With TRAC, users can explore robust and consistent geospatial visualization of contaminants of concern above the regulatory cleanup concentrations at three levels of detail: EM complex, EM site, and waste management unit. Each level includes narrative information on key topics, such as cleanup challenges/priorities and technology approaches, and metrics about contaminant plumes, regulatory context/status, and remedy technologies/implementation status. For more information and to register, see <https://www.clu-in.org/live>.

ITRC: Introduction to Hydrocarbons - Thursday, December 5, 2024, 1:00PM-3:00PM EST (18:00-20:00 GMT). Petroleum is a complex mixture of many compounds. Regulatory and technical guidance documents commonly focus on the hydrocarbon components of that mixture, or perceived risks that they present. However, focusing on a specific area of concern often causes practitioners to overlook other aspects of a release. For example, concerns related to exposure to total petroleum hydrocarbons (TPH) risks may be overlooked while pursuing concerns related to light non-aqueous phase liquid (LNAPL) recovery or petroleum vapor intrusion (PVI). 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 <https://www.clu-in.org/live>.

Regional Climate Training for RCRA Permitting and Hazardous Waste Cleanup - Thursday, December 5, 2024, from 1:30-3:30 PM ET, Thursday and Tuesday, December 10, 2024, from 1:30-3:30 PM ET. The U.S. Environmental Protection Agency's Office of Resource Conservation and Recovery (ORCR) is hosting a multi-part training series on integrating climate change adaptation into the Resource Conservation and Recovery Act (RCRA) permitting and hazardous waste cleanup process. The training series will cover: the regional climate risks to RCRA facilities, the underlying authorities requiring consideration of climate change in the RCRA permitting and hazardous waste cleanup process, the process for conducting a climate vulnerability screening and/or a climate vulnerability assessment (CVA) at a RCRA facility, and optional climate adaptation measures appropriate for RCRA permitting and hazardous waste facilities. These virtual events will feature region case studies and interactive activities to help participants engage with best practices for building climate resilience through the RCRA permitting and hazardous waste cleanup process. For more information and to register, see <https://www.trainex.org/offeringlist.cfm?courseid=2041&all=yes>.

NAPL Migration in the Subsurface - Tuesday, December 10, 2024, 1:00PM-2:30PM EST (18:00-19:30 GMT). A wide variety of organic wastes, commonly referred to as nonaqueous phase liquids (NAPLs), are contaminating soils and groundwater. The physical properties of these NAPLs, including their density, volatility, and viscosity determine how they flow through soils, and understanding their flow in soils is key to understanding how to characterize and remediate NAPL sites. This presentation will include the properties of common NAPLs and describe how they migrate in soils. Future presentations will discuss approach to characterizing NAPL sites, and how NAPLs can be remediated using thermal remediation techniques. For more information and to register, see <https://www.clu-in.org/live>.

Federal Facilities Online Academy: Coordinating with Tribes at Federal Facilities - Thursday, December 12, 2024, 1:00PM-3:00PM EST (18:00-20:00 GMT). This is a two-hour webinar course that will provide an overview of Environmental Protection Agency (EPA) policy on consultation and coordination with Indian Tribes at federal facilities. This webinar will also



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provide tips on how to work more collaboratively during this process. The instructional methodology for this course includes lecture, group discussions, and case studies. The target audience for this course is federal, state, and tribal representatives who work on Federal Facility cleanups. Ideally, students should have a basic understanding of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. For more information and to register, see <https://www.clu-in.org/live>.

Characterization Approaches for Various Types of NAPLs - Wednesday, December 18, 2024, 1:00PM-2:30PM EST (18:00-19:30 GMT). With an understanding of the characteristics of NAPLs, how they flow in soils, and the capabilities of the tools available for remedial investigations, approaches can be developed for determining the extent of NAPLs in the subsurface and making estimations of the contaminant mass. This presentation will describe the Triad approach for characterizing NAPL sites to determine the contaminant distribution, and the geologic and hydrogeologic properties of the subsurface that are critical for determining a technically sound remedial approach. For more information and to register, see <https://www.clu-in.org/live>.

> New Documents and Web Resources

Research Brief 359: User-friendly Technology Detects NDMA in Water. A new technology, developed by researchers at the NIEHS-funded Massachusetts Institute of Technology (MIT) Superfund Research Program (SRP) Center, can detect the contaminant N-nitrosodimethylamine (NDMA) in water. This breakthrough tool offers a quick way to monitor NDMA by triggering a visible color change when light interacts with the contaminated solution. For more information, please visit https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=359

NAVFAC Report: A Framework for Assessing Climate Resilience at the Department of the Navy's Environmental Restoration Sites, August 2024 (SP-NAVFAC EXWC-SH-24001). The Navy developed a Climate Resilience Assessment (CRA) Framework to evaluate the potential for climate change-related hazards to impact Department of the Navy (DON) Environmental Restoration Program (ERP) sites. This Framework can be applied for both active and closed installations with ERP sites where waste remains in place and the criteria for unlimited use/unrestricted exposure (UU/UE) are not met. View or download at https://exwc.navy.mil/Portals/88/Documents/EXWC/Restoration/er_pdfs/c/Climate_Framework_for_ER_Sites%20FINAL%20AUG%202024.pdf?ver=WSVpkccZsCsSIR1o0ntHyg%3d%3d

NAVFAC Factsheet: When to Transition from Active Remediation to Monitored Natural Attenuation, October 2024. Transitioning from active remediation to monitored natural attenuation (MNA) can be a cost-effective strategy for managing these sites, after constituent levels have been significantly reduced through active treatment. This fact sheet outlines a technical approach for performing transition assessments. A web-based learning and decision tool, the Transition Assessment Teaching Assistant (TA2) Tool, was developed as part of a project sponsored by the Department of Defense (DoD) Strategic Environmental Development and Research Program (SERDP) to help practitioners gather information for site-specific transition assessments. View or download at https://exwc.navy.mil/Portals/88/Documents/EXWC/Restoration/er_pdfs/m/MNA%20Fact%20Sheet%20September%202024.pdf?ver=itatZifSYpOmtqiHMOa2CQ%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 resource was included in recent issues:

- 6PPD & 6PPD-Quinone

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 4 resources, events, projects and news items were added to EUGRIS in November. 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

Department of Defense's (DoD) Energy and Environment Innovation Symposium, December 3-6, 2024, Washington, DC
The Department of Defense's (DoD) Energy and Environment Innovation Symposium is the nation's largest conference focusing on the DoD's priority environmental and energy issues. The Symposium will offer a variety of technical sessions and short courses, over 650 technical poster presentations, and networking opportunities. For more information, please visit <https://www.dodinnovationsymposium.org/Home>

Call for Abstracts for AquaConSoil 2025 call for abstracts is open until December 6, 2024. Abstracts are welcome in various thematic areas, including contaminated land management, water quality and climate change adaptation such as Soil-Sediment-Water (SSW) Systems Management, Innovative Strategies for Sustainable Remediation, Enhanced Digitalization and Integrating Multidimensional Perspectives. The event will be held in Liège, Belgium from 16-20 June 2025. For more information, please visit <https://aquaconsoil.com/aquaconsoil2025/abstracts>

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Applications due December 20, 2024 for NIH Entrepreneurship Bootcamp. The NIH Entrepreneurship Bootcamp is designed to equip life science investigators and nascent companies with specialized innovation and entrepreneurship training. The course requires no prior experience. It uses a life science-focused customer discovery process to assess customer and stakeholder needs, and teaches participants to develop stronger business models, market strategies, and commercialization plans in advance of their initial SBIR/STTR application. For more information and to apply, <https://seed.nih.gov/programs-for-academics/academic-entrepreneurship-and-product-development-programs/bootcamp/regist>

EPA Superfund Site Remediation Program: Radiation Risk Assessment Calculator Training - Phoenix, AZ, March 9, 2025. The US EPA Superfund Radiation Risk Assessment is a full-day advanced course will be delivered at the upcoming 2025 Waste Management Symposia. This course focuses on specific technical and regulatory issues that site managers (e.g. RPMs, OSCs) and technical staff (e.g., risk assessors, health physicists) address when managing sites under the US Environmental Protection Agency's Superfund remedial program. This includes conducting a risk assessment for radioactive contaminants. Class instructors are Stuart Walker of US EPA and Fred Dolislager of Oak Ridge National Laboratory. For more information and to register, <https://www.wmsym.org/conference-information/wm2025-conference/>

US EPA and RAIS Screening Level Calculator Training for Chemical and Radionuclide Risk Analysis - Oak Ridge, TN, March 25-27, 2025.

The organizers of this training have been publishing online "risk" (cancer risk and noncancer hazard index) calculators since 1996. 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. 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 and to register, <https://rais.ornl.gov/home/spring2025.html>

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. For more information, please visit <https://www.fedcenter.gov/calendar/conferences/symposium2025/>

NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events. However, we 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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