U.S. ENVIRONMENTAL PROTECTION AGENCY

TechDirect, June 1, 2020

Welcome to TechDirect! Since the May 1 message, TechDirect gained 83 new subscribers for a total of 39,513. 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.

> Brownfields Grants

Applicants Selected for FY 2020 Brownfields Assessment, Revolving Loan Fund, and Cleanup Grants.
The US Environmental Protection Agency (EPA) selected 155 grants for communities and tribes totaling over $65.6 million in EPA brownfields funding through the agency's Assessment, Revolving Loan Fund, and Cleanup Grant Programs.
These EPA grant programs support community revitalization in under-served and economically disadvantaged communities.
Of the communities selected this year, 118 can potentially assess or clean up brownfield sites in census tracts designated as federal Opportunity Zones. An Opportunity Zone is a designated economically distressed census tract where new private investment, under certain conditions, may be eligible for preferential tax treatment. Nearly 30% of the communities selected are receiving brownfields funding for the first time. View more information at
https://www.epa.gov/brownfields/applicants-selected-fy-2020-brownfields-assessment-revolving-loan-fund-and-cleanup-0

> Upcoming Live Internet Seminars

Federal Facilities Online Academy - June 1, 2020 through September 14, 2020.
This voluntary training program has been developed for EPA RPMs, project managers from other federal agencies, State government, and Tribal groups who work on federal facility Superfund cleanups. Please consider participating in all 12 courses, 11 Webinars and 1 In-Person Training, to obtain a certificate upon completion of the entire Federal Facility Academy series. For more information and to register for upcoming

sessions or view archived sessions, see https://trainex.org/offeringslist.cfm?courseid=1819.

Consumption by Tribes of Plants and Animals Not Accounted for in EPA Superfund Risk Assessment Methodology - June 3, 2020, 1:00PM-2:00PM EDT (17:00-18:00 GMT). This webinar will describe the process and results from a research project concerning two issues that arise when assessing risks from contamination at Superfund sites. The first area of focus analyzed information from Superfund risk assessments and other publicly available studies on fruit and vegetable consumption by Native Americans that are outside of the twenty-four produce categories EPA includes in risk assessment models used to develop cleanup levels for residential gardens and farms at radioactively contaminated Superfund sites. The second area of focus of the project analyzed the sources for information on animal consumption by Native Americans that is outside of the twelve farm animal categories in EPA's risk assessment models. For more information and to register, see https://clu-in.org/live.

FRTR Spring 2020 Meeting, Session 2: Bioremediation Advances - New Strategies, Optimization, and Performance Monitoring - June 5, 2020, 1:00PM-3:30PM EDT (17:00-19:30 GMT). The Spring 2020 meeting of the Federal Remediation Technologies Roundtable (FRTR) is being held as a two-part webinar concluding on Friday, June 5, 2020. As always, FRTR meetings are open to the public. FRTR's objectives for this meeting are to: review the state of the practice of bioremediation: Broad overview of where it is commonly applied, where it is still experimental, and what are the challenges; discuss advances in bioremediation for organic and inorganic contaminants, including new approaches, optimization, and tools for monitoring technologies to determine successful performance; and review brief case studies to demonstrate how new technologies are being applied and optimized. The archive of session 1 from May 29 will be available before June 5 at https://clu-in.org/conf/tio/FRTRSpring20-1/. For more information and to register for session 2 on June 5, see https://clu-in.org/live.

NIEHS Superfund Research Program (SRP) Exposures and Latent Disease Risk - June 8 and 16, 2020. The NIEHS Superfund Research Program (SRP) is hosting a Risk e-Learning webinar series focused on understanding the health effects of exposures when there is a lag between exposure and the onset of the disease. In the third session on June 8, presenters will describe studies linking early-life arsenic exposure and later-life disease risk. The focus on arsenic as a case study may also provide insights into linking other exposures to latent disease risk and identifying windows of susceptibility. In the fourth and final session on June 16, presenters will discuss emerging toxicology and modeling methods, as well as needs, to better link exposure to latent disease risk. The archive of the first session from May 11 is available at https://clu-in.org/conf/tio/SRPExposures1_051120/, and the archive of the second session from May 28 will available by June 4 at https://clu-in.org/conf/tio/SRPExposures2/. For more information and to register for sessions 3 and 4, see https://clu-in.org/live.

ITRC TPH Risk Evaluation at Petroleum-Contaminated Sites - June 9, 2020, 1:00PM-3:15PM EDT (17:00-19:15 GMT). The basis for this training course is the ITRC guidance: TPH Risk Evaluation at Petroleum-Contaminated Sites (TPHRisk-1, 2018). The guidance builds on long-standing and current research and experience, and presents the current science for evaluating TPH risk at petroleum-contaminated sites. As a participant in this training you should learn to: recognize the ITRC document as a go-to resource for evaluating TPH risk at petroleum-contaminated sites, recognize how TPH-impacted media interacts with the environment and changes over time, select appropriate analytic method(s) to match site objectives, and apply the decision framework to determine when a site-specific target level may be more appropriate than a generic screening level for TPH. For more information and to register, see https://www.itrcweb.org or https://clu-in.org/live.

Former BICC Cables Site Construction Hudson River Sediment Cap Under the EPRI Building Yonkers, Westchester County, New York - June 10, 2020, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This presentation will highlight work at the BICC Cables Site, a former cable manufacturing facility whose operation led to contamination of on-site soil and sediment by polychlorinated biphenyls (PCBs), has been the subject of remediation efforts since 2005. The impacted sediment could not be efficiently and safely removed by dredging as a result of horizontal and vertical spatial limitations, safety concerns, and the heavy debris content. Therefore, an engineering control was required to contain and treat the PCB impacted sediment. In addition to the engineering challenges posed by the site conditions, the need to work within the waters of the Hudson River created an extremely complex regulatory context. The presentation will discuss a Multi-Layer Sediment Cover System (SCS) engineering control which was designed and implemented to contain and treat the PCB-impacted sediment under the 29,500-square-foot EPRI Building in the Hudson River. In addition, SCS Remote Sensing System load cells with fiber optic cables were installed to monitor long-term movement and integrity of the SCS. Proactive stakeholder engagement was necessary to navigate the project through the two-year permitting process by leading numerous design presentations and negotiation sessions with the five regulatory agencies. Routinely adjusting the installation approach and construction schedule were also necessitated by the nature of working in a dynamic water body. For more information and to register, see https://clu-in.org/live.

ITRC Remediation Management of Complex Sites - June 11, 2020, 1:00PM-3:15PM EDT (17:00-19:15 GMT). This training course and associated ITRC guidance: Remediation Management of Complex Sites (RMCS-1, 2017), provide a recommended holistic process for management of challenging sites, termed "adaptive site management." By participating in this training course we expect you will learn to apply the ITRC guidance document to: identify and integrate technical and nontechnical challenges into a holistic approach to remediation; use the Remediation Potential Assessment to identify whether adaptive site management is warranted due to site complexity; understand and apply adaptive site management principles; develop a long-term performance-based action plan; apply well-demonstrated techniques for effective stakeholder engagement; access additional resources, tools, and case studies most relevant for complex sites; and communicate the value of the guidance to regulators, practitioners, community members, and others. For more information and to register, see https://www.itrcweb.org or https://clu-in.org/live.

Cleanup and Redevelopment of Removal Action Sites in the Kansas City Metropolitan Area - June 12, 2020, 2:00PM-3:30PM EDT (18:00-19:30 GMT). Each year, thousands of emergencies involving hazardous substances are reported in the United States. Emergencies range from small-scale spills to large incidents requiring prompt action and evacuation of nearby populations. In response to these emergencies, EPA conducts short-term cleanups - called removal actions - to protect human health and the environment. This webinar will highlight EPA's involvement at removal sites and examples of successful removal site redevelopment in the Kansas City metropolitan area. The webinar will share lessons learned and information for those interested in Superfund site reuse and commercial, residential, agricultural and industrial redevelopment. For more information and to register, see https://clu-in.org/live.

Superfund Task Force Listening Session, Recommendation 6: Provide Clarification of Principles for Superfund Groundwater Remediation - June 18 and 30, 2020. Superfund Task Force Recommendation 6: Provide Clarification to the Principles for Superfund Groundwater Restoration recommended actions to analyze a select group of major policies and guidances with special emphasis on: 1) beneficial use designation of aquifers in the near- or long-term, 2) remedial timeframe, 3) phased remedial approaches, and 4) completion strategy. This activity has been broadened to also include additional flexibilities such as the use of 5) monitored natural attenuation

(MNA) and 6) technical impracticability (TI) waivers. EPA is seeking input on how groundwater remediation under CERCLA currently incorporates these flexibilities, limitations to their use, and potential ways to increase knowledge and application in future. This information, along with information from additional stakeholders listening sessions, will be used to inform potential future actions as the Agency strives to increase efficiency, reduce time and costs, and to improve groundwater cleanup. The June 18 session is open to environmental groups and the general public. The June 30 session is open to regulated and consulting communities. For more information and to register, see https://clu-in.org/live.

> New Documents and Web Resources

Superfund Research Program (SRP) Research Brief 305: Arsenic Complicates Groundwater Bioremediation. A common groundwater contaminant, trichloroethene (TCE), can be reduced by certain bacteria, a process known as bioremediation. But, according to a new NIEHS SRP study, this process may stall when arsenic is present. In a study led by Lisa Alvarez-Cohen, Ph.D., researchers at the University of California, Berkeley, assessed whether arsenic affected the TCE-degrading activities of Dehalococcoides mccartyi strain 195 (Dhc195), which is known to convert TCE into nontoxic products. View more information at https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=305

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:

- Quarterly Operations Report Third Quarter 2019 Soil Vapor Extraction Containment System, Site 1 Former Drum Marshalling Yard NWIRP Bethpage, NY
- Investigative Area 6 (IA-6) IRM Progress Report Addendum: April/May & July 2019 Groundwater Sampling for the Former Hoffmann-La Roche Inc. Facility, Nutley, New Jersey
- Phase 2 Pilot Study Completion Report: Shell Pond Remediation Pilot Study Project, Bay Point, California
- Proof-of-Concept for the in situ Toxicity Identification Evaluation (iTIE) Technology for Assessing Contaminated Sediments, Remediation Success, Recontamination, and Source Identification
- SRS Deploys Innovation to Clean Up Groundwater Contamination
- Brenntag Southwest, Wichita, KS - 1520 North Barwise, Fourth Quarter 2018: Progress Report
- Fort Drum Moves Toward 2020 Environmental Goal
- Coastal Tank Farm, El Dorado Refinery
- Technical Resources for Addressing Environmental Releases of Per- and Polyfluoroalkyl Substances (PFAS)
- Passive Sampling of Groundwater Wells for Determination of Water Chemistry: Chapter 8 of Section D. Water Quality, Book 1. Collection of Water Data by Direct Measurement
- Thermal Treatment of PFAS in Environmental Media: A review of the state-of-the-science

EUGRIS Corner. New Documents on EUGRIS, the platform for European

contaminated soil and water information. More than 7 resources, events, projects and news items were added to EUGRIS in May 2020 These can be viewed at http://www.eugris.info/whatsnew.asp .

> Conferences and Symposia

ASTSWMO 2020 RCRA Corrective Action Conference - Lexington, KY, September 1-3, 2020. The Conference will feature the theme, "RCRA Corrective Action: 2020 and The Road Ahead", to acknowledge 2020 as the milestone year for achieving RCRA corrective action goals and the work that remains beyond 2020. Session topics will reflect the theme. On September 1, the Conference will be open only to State and Territorial (State) members and EPA Headquarters and Regional staff for discussions of regulators' issues. On September 2-3, ASTSWMO is pleased to invite, in addition to State members and EPA, officials from the U.S. Department of Defense (DoD) and other federal government agencies, industry, and other entities. For more information and to register, see http://astswmo.org/event/astswmo-2020-rcra-corrective-action-conference/.

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 (703) 603-9924 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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