Entries for March 1-15, 2026

Market/Commercialization Information

CERCLA REMOVAL ACTION AT MOJAVE NP, CA (SOL)

U.S. Department of the Interior, National Park Service, Washington Contracting Office
Contract Opportunities on SAM.gov 140P2126Q0049, 2026

This is an Indian Small Business Economic Enterprise (ISBEE) set-aside under NAICS code 562910. The U.S. Department of the Interior, National Park Service seeks a contractor to perform a Non-Time Critical Removal Action under CERCLA at the Hidden Hill Mine site within Mojave National Preserve, CA. The site is a small, remote abandoned mine covering 5 acres at an elevation of ~3,400 feet. Work includes removing approximately 69 cubic yards (CY) of commingled tailings and potentially affected underlying soil (assumed 1-foot depth) over approximately 1,850 square feet, including ancillary soils that may become commingled during excavation. The total estimated removal is 100 CY (150 tons using 1.5 tons/CY). The scope also includes preparing post-award plans, characterizing material, transporting it to approved disposal, collecting/analyzing confirmation samples, and preparing a Response Action Completion Report (RACR). Estimates are based on prior site investigations. The firm-fixed-price contract combines lump-sum and unit-priced items, subject to the variation in quantity clause, with an established ceiling and notification requirements. A 100% payment bond, 100% performance bond, and liability insurance are required before performance. A group site visit is scheduled at 10:00 AM on April 9, 2026. Attendance is strongly encouraged but not mandatory; individual site visits will not be accommodated. Offers are due by 3:00 PM PDT on May 5, 2026.
https://sam.gov/workspace/contract/opp/25038d92ad9245159df111010adc4191/view

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Cleanup News

BUGS TO THE RESCUE: BUILDING A BIOBARRIER FOR MANAGING CVOC-IMPACTED GROUNDWATER

Patel, P. | SMART Remediation, 20 January, Vancouver, Canada, 20 slides, 2026

A study investigated the feasibility of a biobarrier system leveraging bacterial communities and solid organic carbon substrates. The approach aimed to provide a sustainable, cost-effective alternative to overcome the high upfront and replacement costs associated with zero-valent iron (ZVI) permeable reactive barriers (PRBs), while effectively managing highly impacted groundwater. The bench-scale study used readily available and cost-effective solid carbon substrates such as sawdust and peat. Batch microcosm, flow-through column studies, and column experiments demonstrated that peat supported complete reductive dechlorination of TCE to ethene, while sawdust stalled at cDCE and produced excessive methane. Gene analysis indicated that peat microcosms fostered higher populations of Dehalococcoides and functional vcrA genes, correlating with superior TCE degradation performance. Findings identified peat as the preferred substrate for biobarrier implementation and a full-scale biobarrier was constructed, spanning 125 m (410 ft) in length and 5.5 m (18 ft) in depth. The biobarrier achieved substantial CVOC reductions, including average reductions of 70% and localized reductions of up to 90% within two years of operation. Provisions were made for future injections of liquid-based carbon substrates to boost performance or replenish the solid substrates if needed. Over a five-year monitoring period, the biobarrier achieved a 97% reduction in contaminants without requiring maintenance or additional substrate injections. Findings provide valuable insights into substrate selection and system optimization, enabling effective and sustainable long-term groundwater remediation in challenging conditions. https://smartremediation.com/wp-content/uploads/2026/03/SMART-Toronto-2026-%E2%80%93-Paresh-Patel.pdf

A HOLISTIC APPROACH TO SITE REMEDIATION: A DECADE OF INTEGRATED IN SITU REMEDIES FOR MULTIPLE AOCS IN A COMMERCIAL SETTING

Srirangam, R. | DCHWS West 2025 Winter Symposium, 26-28 January, Denver, CO, 16 slides, 2026

Over the past decade, a holistic site remediation strategy was implemented to manage 54 areas of concern (AOCs) at a commercial site in the Northeastern U.S. impacted by contaminants ranging from VOCs and PAHs to PCBs and heavy metals. Remedial activities completed included the excavation of PCBs, SVOCs, and radiologically impacted soil to address 18 of the AOCs, in situ thermal remediation of a 3.1-acre area, removing 34,000 lbs of VOCs, ISCO of VOC-impacted soil and groundwater in a secondary 1.2-acre area, and the dredging of sediments within a downgradient drainage ditch. Engineering controls, including environmental capping and institutional controls, were established across the site with site redevelopment to limit human exposure, ensuring long-term efficacy and regulatory compliance. Following aggressive technologies like in situ thermal and chemical oxidation, the shift towards enhanced in situ bioremediation (EISB) and in situ biogeochemical transformation (ISBGT) was initiated based on long-term groundwater monitoring data demonstrating a shift toward naturally reducing conditions. A biobarrier was installed to prevent plume migration beyond the immediate source areas. EISB's application of organic substrates catalyzed microbiologically driven processes to further degrade residual contaminants. The barrier was optimized using ISBGT, which facilitated the transformation of existing geochemical conditions to create reactive minerals for accelerated monitored natural attenuation. The presentation demonstrates the significance of a holistic approach in managing complex contaminant profiles and the pivotal role of a comprehensive post-monitoring strategy in guiding and fine-tuning remedial transitions, leading to successful multi-faceted site restoration.
https://mediacdn.guidebook.com/upload/213718/wOw0xhkbzPs822LRLydn0hkBz4CM274ErKsf.pdf

RA CASE STUDY EPA REGION 5, VELSICOL CHEMICAL CORPORATION SUPERFUND SITE RES CLIN 2 – OU1 DOWNGRADIENT VERTICAL BARRIER WALL (DGVBW) CONSTRUCTION, ST. LOUIS, MICHIGAN

Srirangam, R. | DCHWS West 2025 Winter Symposium, 26-28 January, Denver, CO, 20 slides, 2026

The Downgradient Vertical Barrier Wall (DGVBW) Construction Project at the Velsicol Chemical Corporation Superfund Site provides a compelling case study in highlighting significant construction challenges that are overcome with structured adaptive management strategies. The presentation explores topics implemented to overcome remedial action challenges while constructing the DGVBW, a 4,300-ft-long sealed steel combination sheet-pile and cylindrical king-pile containment wall installed ~30-ft deep into the subsurface of the Pine River. The DGVBW was designed as a source control remedy to intercept potential subsurface migration of DNAPL and dissolved-phase contaminants into Pine River. Key to the project's success was implementing adaptive management strategies to address design requirements and associated changes and incorporate stakeholder feedback promptly to stay on schedule. The framework enabled rapid decision-making and alignment among regulators, while maintaining compliance with all project requirements. The adaptive management process included field verification of existing site conditions, constructability reviews enabling design modifications, and planning activities to resolve technical uncertainties. A multi-tiered communication strategy included weekly construction, agency, and interagency coordination meetings, onsite briefings, drone aerial imagery to review existing and changing site conditions, reviewing real-time digital monitoring of dust, noise, turbidity, water level changes, and seismic data during construction, and public engagement sessions that helped maintain transparency. The presentation highlights construction challenges that were overcome while working near a sensitive residential setting. This case study provides insights into lessons learned for managing large-scale remedial action with high community visibility. It also underscores the importance of strategic communication, adaptive management, and cross-agency collaboration in delivering technically sound and publicly supported outcomes.
https://mediacdn.guidebook.com/upload/213718/KycWyQ92097h13KSPqigw6PDV1CUDxyQWjFx.pdf

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Demonstrations / Feasibility Studies

PILOT SCALE TREATMENT OF PFAS-CONTAMINATED GROUNDWATER IN A SUBSURFACE FLOW CONSTRUCTED WETLAND-EVALUATING MULTIPLE PLANT SPECIES

Liljestrom, O., D. Rosenquist, D.B. Kleja, A. Enell, and L. Ahrens.
Environmental Pollution 386:127199(2025)

Subsurface flow constructed wetlands were investigated for treating PFAS-contaminated groundwater. The wetlands used a peat, biochar, and lightweight expanded clay aggregate filter substrate, planted with either tufted sedge (*Carex elata*), fiber hemp (*Cannabis sativa* Futura 75), or an intercropping of the two *Salix* clones S. Wilhelm and S. Loden. The experiment was conducted under field conditions in Sweden during one growing season using PFAS-contaminated groundwater impacted by landfill leachate. PFAS accumulated in all plant species and the peat and biochar part of the filter substrate, with short-chain PFAS and PFCAs dominating when considering the whole plants (57% and 77% of ΣPFAS, respectively) and long-chain PFAS and PFSAs dominating in the peat and biochar filter substrate (77% and 54% of ΣPFAS, respectively). Sorption to the filter substrate was the primary mechanism for PFAS removal. The highest plant PFAS concentrations were found in leaves, followed by roots, for all species. A difference in the PFAS composition profile was found when comparing different plant tissues, with PFCAs dominating in leaves (84% of ΣPFAS) and PFSAs dominating in roots (66% of ΣPFAS). All plant species had an above-ground tissue/water phase concentrations >10/1 for C3-PFCA (PFBA). This was also observed for *C. sativa* with C4- and C7-PFCAs (PFPeA, PFOA), and C4- and C5-PFSAs (PFBS, PFPeS), for *C. elata* with C8-PFSA (L-PFOS), and for S. Loden with PFPeA. ΣPFAS phytoextraction potential from landfill leachate-impacted groundwater (mg/ha yr) was estimated to be 940 ± 670 for *C. sativa*, 390 ± 310 for S. Loden, 330 ± 160 for S. Wilhelm, and 160 ± 56 for *C. elata*.
https://www.sciencedirect.com/science/article/pii/S0269749125015738/pdfft?md5=abeaf3db92a84b10bdc3258c4a524c64&pid=1-s2.0-S0269749125015738-mainext.pdf

COLLOIDAL ACTIVATED CARBON PERMEABLE REACTIVE BARRER TO REDUCE PFAS MIGRATION FROM IMPACTED GROUNDWATER INTO OAKLAND BAY

Nunez, D. | DCHWS West 2025 Winter Symposium, 26-28 January, Denver, CO, 21 slides, 2026

PFAS concentrations, ranging from 7.6 to >300,000 ng/L, were detected in groundwater at Alameda Point (Former Naval Air Station Alameda) from past use of AFFF at Site 14. A large-scale pilot test is underway to test the effectiveness of an in situ colloidal activated carbon (CAC) barrier at reducing the mass flux of PFAS migration into Oakland Harbor. The 720-foot PRB was designed using results from a pre-field mobilization lab test using flow-through column tests and contaminant mass flux studies, with 2%, 5%, and 7% CAC dosages. Post-application monitoring over three consecutive quarters shows significant PFAS reduction across three transects along the PRB:

- Transect 1: Upgradient well (10 ft.) reductions ranged from -10% to 53%, downgradient PRB edge well reductions ranged from 97% to 99%, and downgradient well (17 ft.) reductions ranged from 88% to 99%.
- Transect 2: Upgradient well (18 ft.) reductions ranged from -9.2% to 90%, downgradient PRB edge well reductions ranged from 98% - 99%, and downgradient well (18 ft.) reduction ranged from 46% - 79%.
- Transect 3: Upgradient well (14 ft.) reductions ranged from 20%-52%, downgradient PRB edge well reductions ranged between 62% - 99%, and downgradient well (18 ft.) reductions ranged between 68% - 89%.

https://mediacdn.guidebook.com/upload/213718/FuIbQVugUYxtCATmDmxNTZvZi2ORX63cxriX.pdf

FACILITATED TRANSPORT OF ORGANIC CONTAMINANTS IN A HIGH CONCENTRATION, MULTICOMPONENT PLUME

Mackay, D.M., B. Myller, G.C. Bianchi-Mosquera, B.D. Honeyman, M. Schirmer, R.M. Allen-King, W.P. Ball, and R.L. Stollar. Groundwater Monitoring & Remediation 46(1):62-83(2026)

A field experiment evaluated the transport of organic contaminants in a plume from hazardous waste disposal areas at the Rocky Mountain Arsenal. The plume contained many xenobiotic contaminants with widely varying expected mobilities. In lab tests, aquifer sediments showed significant capacity for sorption of organic contaminants from synthetic groundwater, suggesting contaminants' mobilities in situ could have been retarded. Sediment cores showed sorbed concentrations of contaminants at or below detection levels, suggesting sorption in situ was minimal. The field experiment made direct observations of organic contaminant transport under plume conditions by flushing tracer-amended organic-free water through the plume. No contaminants were retarded in their migration compared to the tracer, suggesting negligible sorption of the contaminants in situ. The concentration of colloids, cosolvents, and anionic surfactants in the plume was too low to have had a significant effect on contaminant migration. Though not monitored, non-ionic surfactants could have reduced sorption somewhat if they had constituted a significant fraction of the uncharacterized dissolved organic carbon. Though monitored only indirectly, micro- or nano-plastic particles were deemed unlikely to have significantly affected organic solute transport. Microemulsions may have been present and facilitated the transport of contaminants, but only indirect evidence was obtained. Although the specific reasons for the enhanced mobility of organic contaminants could not be confirmed, the study showed that unknown plume components can be responsible for the suppression of sorption, suggesting new lab research is needed to expand understanding of factors affecting sorption. https://ngwa.onlinelibrary.wiley.com/doi/epdf/10.1111/gwmr.70028

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Research

PFAS STABILIZATION: COMPREHENSIVE BENCH SCALE EVALUATION OF AMENDMENTS, DOSAGE, AND BINDERS

Torney, K. | SMART Remediation, 20 January, Vancouver, Canada, 22 slides, 2026

A bench scale study evaluated a combination of stabilizers and binders to provide a more comprehensive, comparative review of amendment and help inform remediation planning at a site with AFFF-impacted soil. Bench scale testing was conducted on soil collected from the site. The study included three stabilizers (proprietary and generic) at four dose percentages (0.2%, 0.5%, 1%, and 2.0% dry weight) with or without binder for a total of 26 mixes, including control samples. The study was designed to report a four-point (plus unamended reference) dose response relationship for each mix and be consistent with the minimum testing regime for similar peer-reviewed published studies. The testing regime included compaction, hydraulic conductivity testing, geotechnical analyses, EPA LEAF 1314 and 1315, low-level liquid chromatography mass spectrometry, total oxidizable precursor assay (TOPA), and Synthetic Precipitation Leaching Procedure for comparison to LEAF methods. Results informed the following testing objectives: 1) relative performance of proprietary and non-proprietary amendments at varying dosages; 2) dosage/quantity of amendment required to meet site-specific remediation targets; 3) effectiveness of binders to enhance stabilization performance; and 4) comparison of leaching methods. Additionally, geotechnical and hydraulic conductivity data were used to interpret leaching results and were also assessed for potential field-scale quality control, and TOPA data were assessed to determine amendment activity with respect to precursors. Study results contribute to the PFAS soil amendment efficacy literature and can assist in decision-making with respect to amendments, leaching/analytical approaches, implications, and field implementation. Use of amendments to mitigate PFAS contamination represents a sustainable option that reduces soil landfilling and minimizes transportation-related emissions. https://smartremediation.com/wp-content/uploads/2026/03/SMART-Vancouver-2026-%E2%80%93-Korene-Torney.pdf

ADSORPTION OF ULTRASHORT-, SHORT-, AND LONG-CHAIN PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS): IMPACTS OF ADSORBENT, PFAS TYPE, AND COMPETITIVE IONS

Smith, S.M., A.X. Wu, T. Smrz, and L. Xiong. Chemosphere 395:144836(2026)

This study assessed the adsorption efficacy of commercially available anion exchange resin (AEXR) and granular activated carbon (GAC) adsorbents across a series of ultrashort-chain (USC), short-chain (SC), and long-chain (LC) PFAS, with an emphasis on the USC class. Results uncover the relative adsorption selectivity for AEXR vs GAC, the importance of the AEXR functional group, and the impact of competitive inorganic anions across different PFAS and adsorbents. A dynamic column test validated the capacity trends from batch adsorption testing in relation to bed volumes until breakthrough. The structure-property relationships identified expand on the fundamental understanding of adsorbent technology for PFAS remediation applications and highlight the challenges in expanding the application use case, particularly for USC PFAS remediation from water.

A PROPOSED EFFECTIVE PRACTICE APPROACH FOR THE CHARACTERIZATION OF DNAPL SOURCE ZONES

Reynolds, D., K.G. Mumford, S. Bryck, B.H. Kueper, and M. Kavanaugh.
Groundwater Monitoring & Remediation 46(1):49-61(2025)

A study employed the results of a previous virtual site investigation to develop effective practice approaches (methods, strategies, or techniques that have been demonstrated through evidence or experience to yield positive results or outcomes that align with specific, pre-determined goals) for estimating DNAPL footprint and mass, referred to as the Bounding Box and Bulk Retention approaches, respectively. The accuracy and precision of the estimates were assessed using a stochastic approach applied to the virtual sites and evaluated against those by experienced practitioners. The accuracy of the DNAPL footprint and mass estimates did not depend strongly on the borehole density, but the precision of those estimates increased with increasing borehole density. This increase was more pronounced for DNAPL mass than for footprint (i.e., mass estimates were more precise than footprint estimates at the same borehole density), which suggests prioritizing DNAPL source zone delineation during site investigation. When estimates based on grid or random borehole locations were compared to estimates by an expert practitioner, expert judgment was beneficial at low borehole densities but resulted in similar estimates at higher densities, provided that effective practice was used. Estimates based on random borehole locations often outperformed those based on experienced judgment without effective practice, which highlights the importance of data analysis over borehole location for characterizing DNAPL source zones.

LABORATORY INVESTIGATION OF INADVERTENTLY GENERATED PCBS RELEASED FROM CONSUMER PRODUCTS INTO LAKE WATER

Frauenheim, M., X. Liu, K. Woodward, M.R. Mullin, B. Nickel, M. Aguilar, K. Philpott, and
E. Folk. | Journal of Hazardous Materials 503:140974(2026)

A study investigated the occurrence and leaching behavior of inadvertently generated PCBs (iPCBs) in consumer products, including children's toys, craft supplies, paints, soaps, and food packaging. Product selection prioritized items used by children and tribal communities where PCB exposure risks are of heightened concern. Using solvent extraction, sample cleanup processes, and gas chromatography/mass spectrometry analysis, 37-4,268 ng/g of PCB-11 was detected in seven of 114 product types tested and a total of 21 respective color variants. Highest concentrations were found in items containing orange pigments, supporting hypotheses linking PCB-11 to azo pigment synthesis. To assess environmental release potential, batch leaching tests were performed on four representative products across various leach durations (2-28 days) and liquid-to-solid (L/S) ratios (6.7-26.7 mL/g). Results showed that

REMOVAL OF PAHS FROM LARGE-SCALE CONTAMINATED SOIL IN A BIOAUGMENTED SLURRY REMEDIATION SYSTEM: OPTIMAL CONDITIONS VERIFICATION, ENVIRONMENTAL PARAMETER MONITORING, AND MICROBIAL COMMUNITY ANALYSIS

Wang, F., J. Chen, X. Xiao, X. Wang, and S. Chen.
Bioresource Technology 439:133377(2026)

PAH removal was enhanced through a combination of bioaugmentation, condition optimization, and the addition of nitrogen sources and surfactants in a study using a fully functional bioaugmented slurry remediation system to provide a device template for remediation. The study investigated the effects of adding peptone or Tween-80 on PAH removal by agent NS4 in the system. Tween-80 addition under optimal conditions achieved a higher PAH removal efficiency than optimal conditions (with or without peptone addition). System monitoring showed that microbial growth, metabolism, and PAH biodegradation collectively reduced DO and pH while increasing EC. Monitoring these parameters can indirectly reflect microbial activity and PAH removal progress, offering new insights for onsite supervision of PAH remediation. Soil microbial communities differed significantly across environmental conditions. Environmental conditions and remediation time jointly influenced microbial community and functional succession, with environmental conditions exerting a stronger driving force. Network analysis identified 42 microbial operational taxonomic units and 16 PAH-degradation genes as key factors, revealing close interactions between soil microorganisms and PAH-degradation genes.

POWDERED ACTIVATED CARBON TREATMENT OF PFAS-CONTAINING WASHWATER FROM AIRCRAFT HANGAR PIPE RINSING

Hensley, J., J.D. Schober, M. Magnuson, and W.F. Harper.
Remediation 36(2):e70065(2026)

A study investigated the use of powdered activated carbon (PAC) to remove PFAS from washwater used to rinse pipes from aircraft hangar pipe contaminated with AFFF. The untreated washwater contained 249 µg/L of total PFAS. The concentrations were highest for 6:2 FTS (178 µg/L), PFHxA (48 µg/L), PFOA (9.5 µg/L), and PFPeA (6.2 µg/L). PFAS was removed from washwater during 24-h adsorption experiments conducted over a range of adsorbent masses. Temporal increases were observed between the 2- and 4-h total PFAS concentrations during most of the experiments, corresponding to some PFAS species being displaced during complex competitive adsorption mechanisms. After 24 h in the presence of 0.23 g of PAC per liter of solution, removals of 6:2 FTS and PFHxA, two of the short-chain PFAS, were 95% and 86%, respectively. For long-chain PFAS, PFOA, and PFOS were removed to below their quantitation limits in most cases. However, removal of 8:2 FTS was only 52% in the presence of 0.0575 grams of PAC, despite having a relatively high Log K_{OW} and dipole moment values, also pointing to the complexity of PAC adsorption mechanisms in AFFF contaminated water.

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General News

AIRCRAFT RESCUE AND FIREFIGHTING VEHICLE CLEANING FOR AFFF REMOVAL

Lang, J. and D. Kay. SERDP & ESTCP Webinar Series, February 2026

This SERDP and ESTCP webinar features innovative approaches and technologies for PFAS removal and/or destruction from fire suppression systems impacted by residual PFAS due to the use of AFFF. The Department of War (DoW) has many fire suppression systems impacted by residual PFAS due to the use of AFFF. At elevated concentrations, PFAS self-assemble and coat surfaces at liquid/solid interfaces, forming waterproof coatings. Recent work demonstrated that water-only rinses may not adequately clean some system components. However, the cost of replacing all existing PFAS-impacted AFFF delivery infrastructure across DoW installations would be expensive and result in equipment downtime. The first presentation showcases insights from disassembling and analyzing PFAS residual content on foam system components from the Oshkosh T-1500 Aircraft Rescue and Firefighting vehicle. Results provide critical information on mission-relevant considerations for fully remediating equipment after baseline treatment, including costs for replacement of the on-board foam system, out-of-service time required for cleaning, and the extent of replacement required to successfully achieve PFAS removal from an on-board foam system. The second presentation features the PFASigator, a treatment unit that provides a practical, effective, and scalable solution for successfully remediating firefighting systems historically exposed to AFFF. Through employing a micelle-enabled photoactivated reductive defluorination reaction, the solution provides simultaneous PFAS desorption and destruction. The presentation shares results from a field demonstration performed at Tyndall Air Force Base, where PFASigator was connected to a decommissioned firetruck's AFFF tank and associated piping to form a closed recirculation loop. The integrated process of PFAS desorption and destruction removed and mineralized 16.8 grams of PFAS within 48 hours.https://serdp-estcp.mil/events/details/9efc643a-c67f-4035-872a-ae46cb7d0976/aircraft-rescue-and-firefighting-vehicle-cleaning-for-afff-removal

MANAGEMENT OF CONCRETE AND ASPHALT CONSTRUCTION MATERIALS IMPACTED BY PFAS

Doudrick, K. and M. Pourghaz. SERDP & ESTCP Webinar Series, March 2026

This webinar highlights research on the management of concrete and asphalt materials impacted by PFAS, including the transport, leaching, and thermal treatment of PFAS and the potential for reusing treated materials. The first presentation discusses recent work focused on the comprehensive management of PFAS-impacted pavements. It features insights from experimental and modeling results of leaching experiments and overall implications for low-temperature thermal treatment of pavement and its reuse following treatment. For thermal treatment, PFAS degradation was investigated across a range of temperatures (400-1000°C) and residence times. Results showed that the natural or added presence of calcium hydroxide enabled >95% PFAS mineralization and >99.99% destruction and removal efficiency (DRE) at 500°C in under 5 minutes. The project also studied the leaching behavior of PFAS from pavements and examined the potential for reusing thermally treated aggregates. Findings support a multifaceted approach to managing PFAS-impacted pavements, balancing effective remediation, environmental protection, and material reuse. The second presentation discusses a project that investigates the mechanisms governing PFAS transport, interaction, and transformation in Portland cement concrete (PCC) and asphalt concrete (AC) to determine whether these materials serve as long-term sources of PFAS release. The research combined lab experiments and field studies to characterize PFAS distribution in impacted materials; quantify sorption, desorption, and transport processes under saturated and unsaturated conditions; and evaluate PFAS release through surface runoff under field-relevant conditions. Experimental results were used to develop practical transport models capable of translating standardized leaching test data into field-scale predictions for intact, damaged, and recycled materials.
https://serdp-estcp.mil/resources/details/568b2bbd-73bb-4aec-816e-2158ae15694c/management-of-concrete-and-asphalt-construction-materials-impacted-by-pfas

CURRENT KNOWLEDGE ABOUT PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) IN THE ATMOSPHERE: FATE, ANALYTICAL METHODS AND RESEARCH PRIORITIES

Vieira, H.G., M.C. Canela, R.C. Urban, and B.S. Cabrero. | Chemosphere 389:144703(2025)

This comprehensive overview of the current knowledge on PFAS covers: (i) a compilation of information on emission sources, including primary sources (production, manufacturing, use of AFFF, waste handling, marine spraying) and secondary sources (oxidative degradation of neutral PFAS); (ii) proposed classifications of the volatility of these substances based on vapor pressure by EPA; (iii) atmospheric processes that govern gas-particle partitioning, long-range transport, and deposition; (iv) an assessment of current and emerging sampling and analytical techniques, including OTM 45/50 methods; and (v) the identification of priority knowledge gaps. Among the main existing gaps, the validation of improved monitoring strategies and inhalation toxicity studies for neutral precursors could significantly contribute to a robust risk assessment and support regulatory efforts within the evolving global agenda for the phase-out of PFAS.

ENHANCING HEAVY METAL REMOVAL USING NOVEL MEDIA SOLUTIONS

Boussoufa, I. | SMART Remediation, 20 January, Vancouver, Canada, 44 slides, 2026

Advanced treatment methodologies are introduced for the removal of heavy metals, specifically focusing on arsenic, lead, uranium, and mercury. Capabilities of the Cleanit media, a novel iron-based media that efficiently removes lead and arsenic via adsorption and precipitation processes, were presented. The effectiveness of Cleanit-LC in removing toxic heavy metals to meet ultra-low discharge limits was demonstrated, showcasing its potential to significantly reduce environmental impact without altering pH levels, thus promoting cleaner industrial practices at a much lower cost than specialized ion exchange resin. ChemSorb ML, an innovative and versatile amendment for mercury removal, was also covered. ChemSorb ML chemically binds various forms of mercury, including elemental, ionic, and methylmercury, achieving reductions of leachable mercury by >99% and lowering concentrations to parts-per-trillion levels, making it an effective solution for stringent compliance requirements. The presentation concludes with case studies, presentations, and performance data that illustrate the practical applications and benefits

of these media in real-world scenarios, underscoring their effectiveness in reducing operational costs and enhancing compliance with environmental regulations.
https://smartremediation.com/wp-content/uploads/2026/03/SMART-Vancouver_Calgary-2026-%E2%80%93-Imane-Boussoufa.pdf

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