

Federal Remediation Technologies Roundtable



Agency Announcements

Air Force Civil Engineer Center



Restoration Technology Webinars

Topic	Speaker	Date
Particulate Carbon Amendment Injection into a Fractured Granitic Bedrock Aquifer for Treatment of CVOCs	Stephen Richardson, GSI	10 April 2024
The Horizontal Reactive Treatment Well (HRX Well®) for In-Situ Control of cVOC and PFAS Mass Flux	Craig Divine, Arcadis	8 May 2024
Mass Flux as a Tool to Assess the Need for Remediation of PFAS Source Zones	Charles Schafer, CDM Smith	12 June 2024
Long-Term Sustainability of Soil Stabilization Technology to Minimize PFAS Leaching	Theresa Olechiw, Arcadis	10 July 2024
Field Scale Demonstrations of Super Critical Water Oxidation Technology for PFAS Destruction at Air Force Restoration Sites	Steven Rozansky, Battelle	14 August 2024
PFAS Destructive Treatment Train with Cyclodextrin Adsorbent and DEFLUOR Electrochemical Oxidation	TBD, AECOM	11 September 2024

Monthly, 2nd Wed @ 2pm (Eastern): <https://www.afit.edu/CE/index.cfm>

Click on “Speaker Series” for upcoming and archived presentations

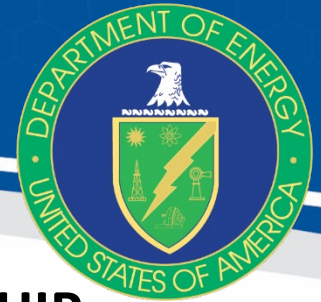


Do you hear about TRAC?

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.

In addition to tracking remediation progress, TRAC is an online information resource that promotes the sharing of technologies, successes, and lessons learned across the DOE-EM complex by providing a single, consistent framework for integrating and standardizing information among EM sites. TRAC facilitates effective communication about progress toward site closure between DOE-EM sites and Headquarters, and with regulators and stakeholders.

For more information: www.pnnl.gov/projects/trac



DOE EM- MINORITY SERVING INSTITUTIONS PARTNERSHIP PROGRAM

The Minority Serving Institutions Partnership Program (EM MSIPP) promotes the education and development of the next generation workforce in critical science, engineering, technology, and math (STEM) related disciplines that compliment current and future missions of [The U.S. Department of Energy Office of Environmental Management \(DOE-EM\)](#).

DOE-EM recognizes that successfully completing its legacy environmental cleanup mission requires maintaining a highly-trained, technically skilled, and diverse workforce. Minority representation in critical science and engineering fields is an important part of EM's vision for this future workforce.

EM MSIPP provides students and graduates of Minority Serving Institutions (MSIs) with hands-on education and experience by supporting collaborations between MSIs and DOE national laboratories. According to The U.S. Department of Education, MSIs are institutions in which one minority group constitutes at least 25% of total undergraduate enrollment, or in which all minority students constitute at least 50% of the total undergraduate enrollment.

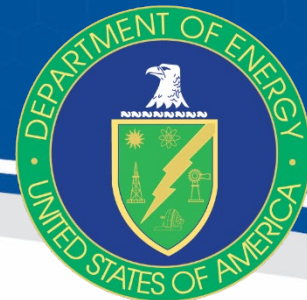


MSIPP University and Student Engagement

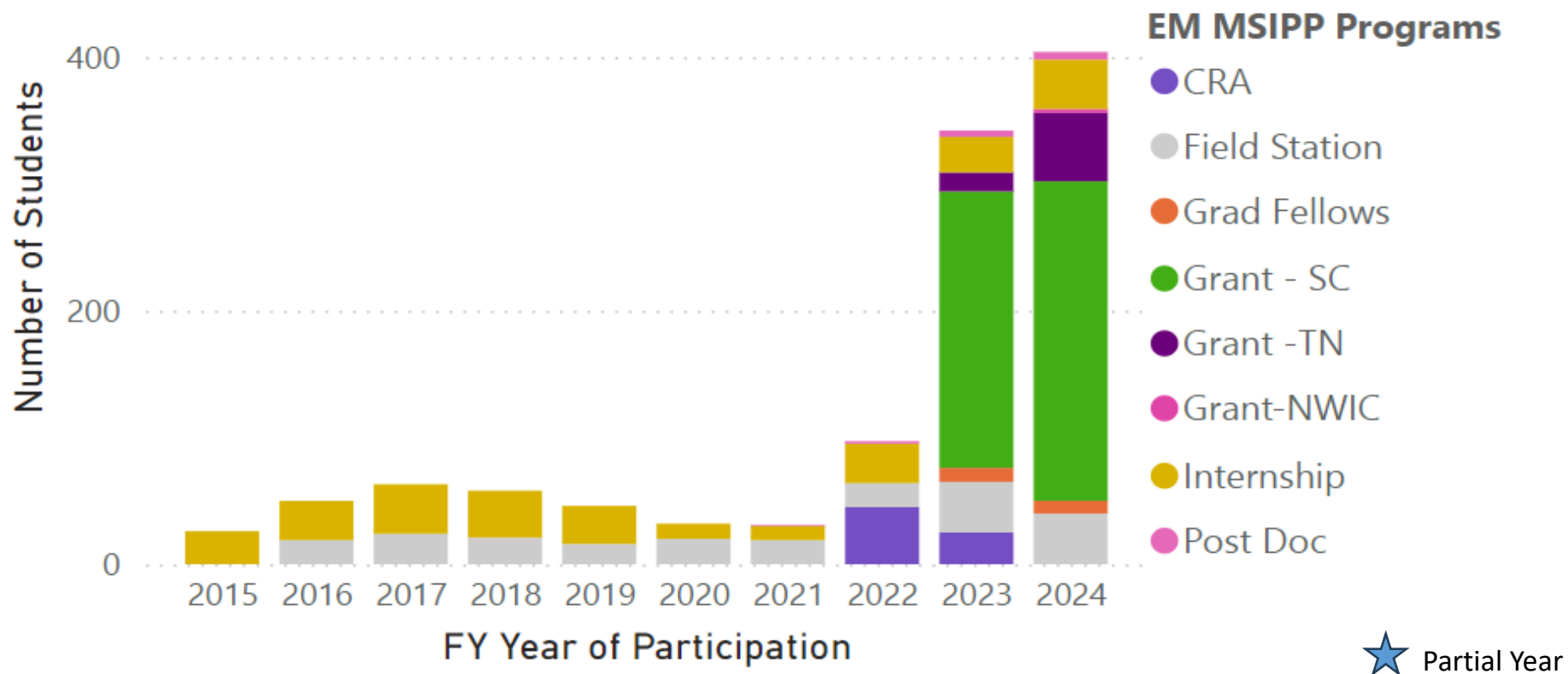


Engaged 221 MSIs utilizing campus visits and the Handshake platform.





Significant Growth in Student Participation

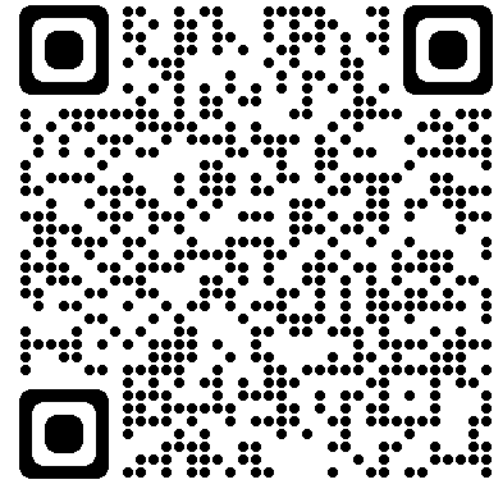




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with Us!*



EM-MSIPP LinkedIn Page



EM-MSIPP Program Page



- **EPA Federal Facility RPM Training**

June 11-13 in Denver, Colorado

October 8-10 in Lenexa, Kansas

<https://www.trainex.org/offeringslist.cfm?courseid=1749&all=yes>

- **Federal Facility Academy webinars**

<https://www.trainex.org/FFacademy>

For More Information

Contact

McEaddy.monica@epa.gov

Web Sites

www.epa.gov/fedfac

- New Report:

Lorah *et al.*: Anaerobic biodegradation of perfluorooctane sulfonate (PFOS) and microbial community composition in soil amended with a dechlorinating culture and chlorinated solvents

<https://doi.org/10.1016/j.scitotenv.2024.172996>



Anaerobic biodegradation of perfluorooctane sulfonate (PFOS) and microbial community composition in soil amended with a dechlorinating culture and chlorinated solvents

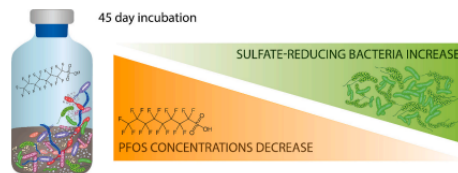
Michelle M. Lorah^{a,*}, Ke He^b, Lee Blaney^b, Denise M. Akob^c, Cassandra Harris^{c,1}, Andrea Tokranov^d, Zachary Hopkins^e, Brian P. Shedd^f

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^b University of Maryland Baltimore County, Department of Chemical, Biochemical, and Environmental Engineering, Baltimore, MD 21250, USA
^c U.S. Geological Survey, Geology, Energy, & Minerals Science Center, Reston, VA 20192, USA
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^e U.S. Geological Survey, Eastern Ecological Science Center, Kearneysville, WV 25430, USA
^f U.S. Army Corps of Engineers, U.S. DOD Environmental Programs Branch, Environmental Division, Headquarters, Washington, D.C. 20314, USA

HIGHLIGHTS

- PFOS biodegradation occurred in soil microcosms with added dehalogenating culture.
- Initial presence of chlorinated volatile organic compounds enhanced PFOS removal.
- Shorter chain perfluorinated sulfonates were minor PFOS metabolites.
- Increased abundance of sulfate reducers was associated with PFOS removal.
- Further research for a PFAS *in situ* bioremediation method is warranted.

GRAPHICAL ABSTRACT



For More Information

Contact

mmlorah@usgs.gov

Web Sites

USGS.gov

Naval Facilities Engineering Systems Command



DON Environmental Restoration and BRAC (ERB) Website

<https://exwc.navfac.navy.mil/go/erb>

Visit us on **LinkedIn**: <https://www.linkedin.com/showcase/navfacerb>

DON Policy/Guidance: <https://exwc.navfac.navy.mil/go/resources>

Reports and Tools:

- **New!** Using REMChlor-MD to Assess the Impact of Matrix Diffusion on Chlorinated Solvent Sites [ERB Website > Training > Technology Transfer > Publications Matrix Diffusion FactSheet 2024.pdf \(navy.mil\)](#)
- **New!** DoD ESTCP Mobile/Immobile Porosity Exchange Tool (MI-PET) [ERB Website > Training > Technology Transfer > Technology Transfer T2email Mar24.pdf \(navy.mil\)](#)

Open Environmental Restoration Resource Webinars: [ERB Website > Training > OER2](#)

- **New!** Revised Interim General Guidelines for PFAS Remedial Investigations (RIs) [OER2 Webinars \(navy.mil\)](#)

Navy Remediation Innovative Technology Seminar (RITS) [ERB Website > Training > RITS](#)

Registration for June & July Offerings, open to DON RPMs and other DON/DoD personnel, federal/state/local regulators, and contractors with an active DON Environmental Restoration contract. [RITS \(navy.mil\)](#)

For More Information Contact
karla.j.harre.civ@us.navy.mil

US Nuclear Regulatory Commission




The NRC Issued SECY-24-0035 on Advancing the Use of AI at the NRC

[SECY-24-0035](#) summarized potential AI applications and the staff's overall approach to effectively leverage AI at the NRC. Staff identified 61 potential applications:

- 36 are recommended for AI use cases
- 25 focus on data analytics or automating processes

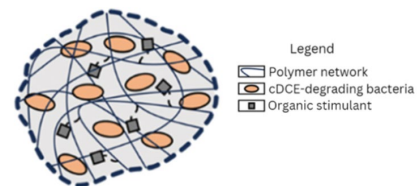
•For more information, contact:
Boby Abu-Eid at: Boby.Abu-Eid@nrc.gov

		<small>"OFFICIAL USE ONLY" SENSITIVE INTERNAL INFORMATION LIMITED TO THE NRC UNLESS THE COMMISSION DETERMINES OTHERWISE</small>
POLICY ISSUE (Information)		<u>SECY-24-0035</u>
<u>April 25, 2024</u>		
<u>FOR:</u>	The Commissioners	
<u>FROM:</u>	Raymond V. Furstenau Acting Executive Director for Operations	
<u>SUBJECT:</u>	ADVANCING THE USE OF ARTIFICIAL INTELLIGENCE AT THE U.S. NUCLEAR REGULATORY COMMISSION	
<u>PURPOSE:</u>	This paper responds to the Chair's tasking memorandum ¹ directing the staff to identify how artificial intelligence ² (AI) can be used to enhance the work of the U.S. Nuclear Regulatory Commission (NRC). This paper summarizes potential AI applications and the staff's overall approach to effectively leverage AI to drive value for the agency and enhance how it meets its mission. It offers a vision of how the NRC will continue to innovate and responsibly use the latest advances in AI technology to meet its safety and security mission. The paper reflects how the staff embraced the Chair's direction to advance the agency's knowledge and develop concepts for using AI to enhance our mission.	

Monthly Research Brief #353

[Engineering Hydrogel Beads to Enhance Bioremediation of Groundwater Contaminant.](#)

Harris C, Gedde H, Davis A, Semprini L, Rochefort WE, Fogg K. 2024. The optimization of poly(vinyl)-alcohol-alginate beads with a slow-release compound for the aerobic cometabolism of chlorinated aliphatic hydrocarbons. RSC Sustain [doi:10.1039/D3SU00409K](https://doi.org/10.1039/D3SU00409K)



Depiction of the composition of the hydrogel beads. The cDCE-degrading bacteria and organic stimulant are enmeshed within the bead polymers. (Image adapted from Harris et al., 2024)

Visit page for full story, publications, and podcast.

March 2024 SRP Digest:

[Promoting Healthy Fish](#)

[Consumption](#) Highlights SRP's research and community engagement for potential sources of exposure and identify contaminant transfer in fish and seafood.



Ghosh, right, and colleagues collect samples to measure PCBs. (Image from a [YouTube video](#) highlighting work in Delaware)

[SRP Events:](#)

Stay Tuned: the next SRP Annual Meeting will be in Spring/Summer 2025!

Recent Webinar Series:

[Progress in Research: Emerging Technologies in Occupational Health and Safety](#)



Ongoing Solicitations

- [Small Business Innovative Research Grants](#) Due Jan 5, Apr 5, Sept 5, also please see new initiatives on [Climate Change](#)
- [Mechanism for Time-Sensitive Research Opportunities in Environmental Health Sciences \(R21\)](#) Monthly receipt dates