

## Short Course: Managing PFAS Contamination at Your Site - Site Characterization, Remediation Alternatives, Risk Assessment and Risk Communications

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**Course Objective.** Per- and polyfluoroalkyl Substances (PFAS) are an emerging group of contaminants that present unique issues with site characterization, sampling and analysis, fate and transport, and remedial choices. Regulators, site managers, problem owners, consultants and technology developers will gain state of the art knowledge on PFAS and make better decision on managing PFAS impacted sites.

**Course Overview.** Per- and polyfluoroalkyl substances (PFAS), comprising diverse groups of fluorinated chemicals (3000+ in the global market), have been widely used since 1950s in various military and industrial applications and consumer products. PFAS are not biodegradable and are relatively soluble in the environment. Their manufacturing and uses, without proper PFAS management and pollution controls, have made them nearly ubiquitous in the environment. Their unique characteristics also make this class of contaminants difficult to treat. In 2017-2018, the Interstate Technology and Regulatory Council (ITRC) developed six fact sheets that provide overview on PFAS nomenclature and physical/chemical properties; sources and uses; regulatory trends; site characterization (including sampling and lab methods); fate and transport; treatment technologies; and AFFF. and the team is also developing a PFAS risk communications tool box and a more in-depth report on PFAS. This 8-hour ITRC classroom training led by PFAS experts from the state agencies and industries will provide an overview of PFAS in the environment and the key elements for characterizing and managing PFAS impacted sites. This training class will allow our trainees to:

- Understand the essential knowledge on PFAS sources, uses and occurrence
- Recognize the unique aspects of PFAS sampling, analysis and data accuracy
- Develop an understanding of PFAS fate and transport
- Establish basic knowledge of PFAS uptake and bioaccumulations associated with different ecological and human receptors, and their potential toxic effects based on today's state of the science
- Evaluate treatment technologies ranging from commercially available separation and binding technologies to destruction technologies under development. Design considerations and performance evaluation will be presented for those technologies that are proven and demonstrated.
- Establish basic skills to communicate the risks associated with PFAS

Additionally, case studies will be presented that demonstrate how each of these elements can be applied in the site-specific projects. The training will also incorporate interactive learning experience with classroom exercise and Q&A sessions for reinforcing these course learning objectives.