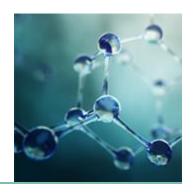
ERM MARKET UPDATE

All seven PFAS Fact Sheets are now available from ITRC - will PFAS become a new liability at your site?

October 2018



Per- and Poly-Fluorinated Alkyl Substances (PFAS) are a class of emerging contaminants that are currently the focus of much public, regulatory, and media attention.

Background

In May 2016, the USEPA released updated Lifetime Health Advisories (HA) for two PFAS – perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) – that lowered the HA values for drinking water to 70 parts per trillion (ppt) combined PFOA and PFOS concentration. Since then, numerous States have released new lower standards or guidance values for these compounds. PFAS has been discovered in over 80 Public Water Systems across the United States, sparking public outrage and a media storm. In December 2017, USEPA announced a new initiative to assist States and Localities with PFAS. Under this initiative, USEPA convened a PFAS National Leadership Summit and announced plans to evaluate the need for drinking water standards for PFOA and PFOS and to develop a PFAS Management Plan.

The Interstate Technology and Regulatory Council (ITRC) formed a team to address PFAS because this class of compounds is extremely complex and the science and regulatory frameworks are evolving rapidly. The ITRC PFAS team has created seven Fact Sheets to assist the regulatory community and other stakeholders in understanding PFAS chemistry, uses, impact on environmental media, and remediation.

The ITRC PFAS team is now preparing a Technical/Regulatory document and associated Internet-Based Training program to be completed in late 2019, and a series of training courses to be held in 2018/2019 throughout the US.

ERM has provided direct funding to the ITRC to support the PFAS team and has active members who are contributing to this team's output.

BE PREPARED!

USEPA may request PFAS sampling at your sites under CERCLA and RCRA (e.g. during the 5-Year Review process)

Several States (e.g. New York) are requesting PFAS sampling at facilities that may have handled PFAS materials.

In the European Community and Australia, PFAS have the full attention of regulators.

PFAS Fact Sheets



ITRC developed seven Fact Sheets on PFAS. The goal of these fact sheets is to provide state regulators and other stakeholders with the current scientific information about this complex group of chemicals, where they may have been used, how to investigate sites for these chemicals and what technologies may be emerging for their treatment.

The fact sheets are available through the ITRC website (http://pfas-1.itrcweb.org):



ITRC PFAS Fact Sheets

ITRC Fact Sheet	Topics
History and Use	History Occurrence Manufacturing processes Uses of PFAS
Nomenclature & Physiochemical Properties	Nomenclature – major classes Terminology - Moving away from the term "PFCs" Chemical properties
Regulatory Summary	Federal and State programs under which PFAS are being regulated Status of guidance and regulatory values for PFAS across USA
Environmental Fate and Transport	PFAS transformation, partitioning, and transport Occurrence in environmental media Bioaccumulation
Site Characterization	Site characterization tools Sampling techniques Laboratory analytical methods
Remediation Technologies	Remedial technologies and status of development Treatment processes Challenges and limitation
Aqueous Film-Forming Foam (AFFF)	Human health and environmental concerns for AFFF use Best management practices for Class B AFFF use AFFF releases and recommended investigative actions

Evaluating potential risk

Two PFAS compounds - PFOA and PFOS - are the current focus of most regulatory concerns. However, thousands of other chemicals within the PFAS suite of compounds have been used in firefighting foams and manufacturing processes. The unique chemistry of the carbon-fluorine bond and surfactant properties of many PFAS make these compounds key ingredients in a wide range of industrial and consumer products.

Potential PFAS Sources include:

- Primary Production Plants
- Secondary Manufacturing Facilities
 - fluoropolymer applications
 - textiles/leather
 - paper products
 - metal plating/etching, wire manufacturing
 - industrial surfactants/resins/molds/plastics
 - photolithography
- Firefighting and firefighting training areas
- Landfills
- Wastewater Treatment Plants

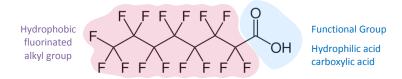
Understanding whether your company may have used PFAS compounds and which PFAS compounds might be present at your sites can be a challenging first step in evaluating the risk. Understanding the current regulatory framework where those at-risk sites are located will allow for proactive planning around this very publically emerging issue.

How ERM can help

ERM has experience in helping map out potential risk for large industry portfolios and is available to help as needed. ERM is currently working on assessment and mitigation options for multiple sites with varied PFAS releases.

ERM can provide you with PFAS services for:

- Portfolio evaluations and strategic planning
- Responses to regulators in regards to PFAS sampling requests
- Site investigation, management and remediation in the United States and internationally



Key contacts

For further information for how ERM can provide you with up-to-date PFAS information and solutions, please contact:

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