



PFAS SERVICES FOR THE SOLID WASTE INDUSTRY



DELIVERING IN THE MARKET

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MARKETS WE SERVE



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PFAS SERVICES FOR THE SOLID WASTE INDUSTRY

PFAS are a group of more than 5,000 man-made chemicals that are found in a variety of everyday products including food packaging, clothing and upholstery, cosmetics, firefighting foams and lubricants. The regulatory framework and science of PFAS are rapidly evolving, creating business and environmental risks related to storage, management, disposal and use of PFAS-containing materials.

While the solid waste industry is not a producer of PFAS-containing materials, it has become a passive receiver and consolidator of PFAS-containing wastes due to the nature of the service it provides to its customers. Although the United States Environmental Protection Agency (USEPA) has banned the use of some PFAS in the manufacturing process, and multiple states are following suit with more extensive bans on use in food packaging, cosmetics, and textiles, PFAS remain in many household, commercial, and industrial products and will remain in waste materials for the foreseeable future. Although waste disposal facilities were not aware of the amount of PFAS within permitted waste materials accepted at their facilities, these facilities are now potentially liable for managing PFAS-impacted leachate, surface water, and groundwater at and around their facility. Additionally, as reuse of PFAS-containing materials that had been previously diverted from landfills (such as biosolids) has become more restricted, landfills are facing new challenges due to the unique handling requirements for some of these wastes.

Today, sites around the world may have PFAS contamination from these passive receivers. Traces of these chemicals are now showing up in groundwater and can be present from legacy use of PFAS, even if the use of the PFAS-containing materials has been discontinued.

An increasing number of states and municipalities are conducting leachate, groundwater, and surface water sampling to determine PFAS levels in these media, and EPA has conducted two rounds of drinking water supply sampling under the Safe Drinking Water Act. Many states and municipalities are also requiring facilities that discharge stormwater and leachate to sample downgradient streams for PFAS compounds to identify potential sources of PFAS.

| What Do You Care About? | |
|-------------------------------|---|
| Question | TRC's Solutions |
| Do I have PFAS? | <ul style="list-style-type: none"> • Risk management reviews/ planning • Site investigations • Water and wastewater testing • Air testing |
| Is it really mine? | <ul style="list-style-type: none"> • Forensics • Fate and transport modeling • Background sampling |
| How much is it going to cost? | <ul style="list-style-type: none"> • Risk assessment • Alternative remedies • Cost/scenario modeling |
| When will I be done? | <ul style="list-style-type: none"> • Regulatory negotiations • Smart closure strategies |

OUR SERVICES

Solid waste treatment and disposal facilities are advised to develop proactive response strategies to better understand current and historical acceptance of PFAS in their waste streams. Some potential action items that TRC can support you with are as follows:

- Conduct a facility or company-wide risk management review to understand potential PFAS exposure:
 - Initiate system-wide inventories to identify currently and historically accepted PFAS-containing waste materials (e.g., wastewater treatment plant sludge, industrial wastes, carpeting and upholstery, etc.)
 - Evaluate the currently accepted wastes with regard to the presence of PFAS; work with customers, if possible, to obtain waste characterization testing
 - Track regulations in applicable states and understand PFAS waste disposal requirements at different locations
 - Follow new enforcement and compliance obligations involving PFAS and PFAS-containing wastes
 - Document potential areas of PFAS impacts
- Develop and update waste placement plans and standard operating procedures to address and minimize environmental, health and safety risks, such as stability concerns, stormwater pollution, hazmat spills and leachate production
- Create goal-oriented sampling plans of stormwater, leachate, groundwater and landfill gas, as appropriate
- Perform inspections of landfill operations and perform environmental sampling, if required

Nationwide Expertise in Solid Waste and PFAS Research and Regulation

TRC's Center of Research and Expertise (CORE) is a national leader in Solid Waste Management and PFAS risk management, regulatory support, toxicity evaluation, forensics, fate and transport, sampling, testing, and remediation methods. TRC will bring our extensive experience to your project to help you manage your concerns, solve your problems, and move on to your next priority with confidence.

TRC's overall goal is to help clients manage their risks at a time of regulatory uncertainty. With staff located throughout the country, we bring both a national and local perspective to solid waste and PFAS-related issues and how developing legislation will impact the future.



