

# End PFAS Liability for Landfill Leachate

## APPLICATION BRIEF

## LANDFILLS

### THE ELECTRA CLEAR™ ADVANTAGE

Destroys up to 99.999% of long, short, and ultra-short chain PFAS

Effective against solvents, 1,4-dioxane, and other complex organics

Eliminates the need for costly off-site disposal and incineration

Zero-waste treatment that breaks contaminants down to their simplest, most stable forms

Guaranteed treatment outcomes backed by expert system operation



Axine is redefining landfill leachate treatment with electraCLEAR.

Our technology destroys PFAS, solvents, 1,4-dioxane, and other persistent contaminants at the source, eliminating long-term risk for landfill and solid waste management facilities. With more than 200,000 hours of proven runtime across the most demanding industries, electraCLEAR delivers guaranteed results through modular systems and flexible service models.

Our mission is to break the cycle of persistent contamination, reduce operational burden, and give landfill operators the freedom to operate without compromise.

### THE CHALLENGE: PFAS IN LEACHATE. REGULATIONS ON THE HORIZON

Landfills and solid waste facilities generate significant volumes of leachate containing high concentrations of PFAS.

Historically, many sites have relied on publicly owned treatment works (POTWs) for disposal. But with new PFAS effluent limits anticipated, that option is expected to be severely restricted or eliminated.

This regulatory shift creates uncertainty, liability, and rising costs for operators. To protect their operations and ensure compliance, landfill facilities now need onsite solutions that not only capture PFAS but destroy it completely at the source.

### THE SOLUTION: FREEDOM TO OPERATE. POWER TO DESTROY

Axine's electraCLEAR™ technology destroys PFAS, solvents, and other persistent contaminants completely at the source, providing a zero-waste alternative to off-site disposal.



Contaminant	Conc. / Carbon#	Landfill Leachate RO Concentrate	Ground Water RO Reject	Leachate-Contaminated Ground Water Foamate	Landfill Leachate Foamate	Ground Water SAFF Foamate	IX Regenerate Brine Water
Infl TOC	mg/l	3,200	3,190	460	1,600	20	4,500
Influent Tot PFAS	ng/l	114,000	128,000	756,000	1,495,000	6,040,000	375,000,000
NEtFOSAA	C12	-	-	-	99.989%	-	-
PFDoA	C12	-	-	-	99.900%	-	-
NMeFOSAA	C11	-	-	-	99.987%	-	-
NMeFOSE	C11	-	-	-	-	-	-
PFUnA	C11	-	-	-	99.962%	-	-
8:2 FTS	C10	-	-	-	99.992%	-	-
PFDA	C10	-	N.D.	-	99.993%	N.D.	-
PFNA	C9	-	N.D.	99.711%	99.998%	N.D.	99.444%
PFOS	C8	N.D.	N.D.	99.757%	99.973%	99.9999%	N.D.
PFOA	C8	N.D.	N.D.	99.991%	99.997%	99.9997%	99.965%
6:2 FTS	C8	-	N.D.	99.304%	99.997%	-	99.730%
PFOSA	C8	-	-	-	99.027%	-	N.D.
PFHpA	C7	N.D.	N.D.	99.971%	99.975%	N.D.	99.960%
PFHpS	C7	-	N.D.	N.D.	N.D.	N.D.	N.D.
4:2 FTS	C6	-	-	-	-	-	N.D.
PFHxA	C6	N.D.	N.D.	99.962%	99.893%	N.D.	99.972%

### electraCLEAR PFAS Destruction Results Landfill Leachate Applications

### VALIDATED DESTRUCTION AT COMMERCIAL SCALE

Axine's electraCLEAR technology is the first commercial-scale electrochemical oxidation process validated to achieve 3 to 5 log reduction, eliminating up to 99.999% of long, short, and ultra-short chain PFAS.

The system has also been proven effective against solvents, 1,4-dioxane, and other complex organic contaminants in landfill leachate applications.

These results have been confirmed through rigorous laboratory and pilot-scale testing for each project and application, ensuring predictable outcomes and guaranteed treatment performance in real-world operations.

### AXINE EXPERTISE. RESULTS YOU CAN TRUST

Axine brings decades of expertise in industrial water and wastewater treatment, backed by a proven track record of collaboration and innovation.

The electraCLEAR systems have now logged more than 200,000 hours of continuous runtime across projects worldwide, including some of the most demanding landfill and leachate treatment environments. Every system is designed, operated, and optimized by our team of experts to guarantee performance. Our commitment is simple: deliver results that exceed expectations and give customers the freedom to operate without compromise.

For facilities using concentration technologies such as reverse osmosis, foam fractionation or ion exchange, electraCLEAR protects your operations by destroying the captured PFAS onsite and eliminating the cost, logistics, and liability of transporting waste offsite.

The system combines advanced electrode and catalyst materials with precision process controls in a modular design that integrates easily into new or existing treatment systems. Performance is continuously optimized with Axine's proprietary AI and machine learning platform to maximize efficiency while lowering long-term operating costs.

Because electraCLEAR operates at ambient temperature and pressure, it is safer, simpler, and less energy-intensive than thermal oxidation, making it practical for most landfill and leachate treatment sites.

