

Restoring PFAS-laden Adsorption Media with GAC Renew™

Industrial, municipal, and remediation water treatment facilities rely on granular activated carbon (GAC) systems to remove per- and poly-fluoroalkyl substances (PFAS).

The current practice of exchanging and disposing of exhausted GAC is expensive to ship, may increase Environmental Justice burdens, and in many cases does not allow PFAS compound destruction, only relocation. Thermal treatment methods are less than ideal because they are energy intensive and result in unwanted, harmful byproducts. Without a full-cycle destruction system, GAC that can no longer be reactivated may leach into groundwater, magnifying PFAS contamination impacts.

The On-site Answer to GAC Regeneration

Revive Environmental™ has pioneered a mobile method of renewing carbon in situ, eliminating the need to ship materials offsite. The GAC Renew technology regenerates spent GAC on-site, extending its lifespan, minimizing downtime, and reducing the total cost of ownership by driving down operational expenses. The PFAS Annihilator™ ensures the PFAS-laden waste stream is responsibly eliminated for a complete GAC restoration solution.

How It Works

One tank is taken offline while the second tank allows GAC treatment to continue uninhibited during regeneration. The regenerant solution is stored on-site and cycled through the tank. The spent regenerant solution is then distilled and can be treated using the PFAS Annihilator. After the solution has regenerated the spent GAC, potable water is passed through that tank to rinse the GAC before putting it back online.

Benefits of GAC Renew

Non-thermal, in-situ, extraction-based treatment

Eliminates the need to ship spent GAC

Reduces total operating costs

Maximizes system uptime

Extends the lifespan of GAC across multiple regeneration cycles

Environmentally friendly alternative to traditional carbon exchange

Destruction of waste using PFAS Annihilator

