



WASTE DESTRUCTION SYSTEM

PERSES™ is a proven, highly effective and environmentally safe system for the destruction of hazardous and non-hazardous organic waste including PFAS (per- and polyfluoroalkyl substances).

PERSES utilizes General Atomics Electromagnetic Systems' unique industrial Supercritical Water Oxidation (iSCWO) technology to destroy waste with no post-treatment requirement. In a single process, PERSES breaks down waste into benign water, carbon dioxide, and salts, all of which can be safely released into the environment or reused for other industrial purposes.

PROVEN

EPA (Environmental Protection Agency) tested and verified for the destruction of PFAS

In commercial use since 2012

Demonstrated industrial operation capabilities

EFFECTIVE

99.99% or greater destruction efficiency

Destroys PFAS waste and co-contaminants simultaneously

Tested to destroy 200+ different waste streams

SUSTAINABLE

No post-treatment required

No high emissions

No hazardous by-products to store, transport or dispose of

ROBUST, MATURE SOLUTION

Decades of technology research and development

In-house engineering expertise, aftermarket support, training, and spare parts

System maturity at Technology Readiness Level (TRL) 8 or 9

DEDICATED TEST FACILITY

Full-scale, industrial system

Continuous destruction testing with real-time monitoring – not batch testing

Gas and liquid effluent discharge analysis

Throughput and destruction efficiencies analysis

Analysis reports provided to support permitting process

COST EFFICIENT

Scalable, compact footprint

Easy to install, operate and maintain

Single process solution, no reprocessing required

Significant cost and environmental impact savings for on-site waste destruction compared to incineration

Configurable fixed and transportable systems to meet specific site and throughput requirements

No complicated post-treatment pollution abatement system required



PERSES destroys hazardous and non-hazardous organic waste at the molecular level. The system's patented iSCWO reactor operates at high temperature (650°C) and high pressure (4,000 psi) to ensure rapid and complete destruction of organic material. The system is designed to resist corrosion, erosion, and salt buildup to facilitate continuous throughput and reduced maintenance and downtime.

PFAS ISN'T FOREVER ANYMORE

PERSES destroys PFAS and PFAS waste contaminated with other organics from sources including:

- Aqueous Fire Fighting Foam (AFFF)
- Granulated Activated Carbon (GAC)
- Landfill leachate
- Biosolids
- Wastewater with reverse osmosis as a front end
- Soils with thermal desorption as a front end
- Resin beads
- Microplastics

TESTED TO DESTROY 200+ DIFFERENT WASTE STREAMS INCLUDING:

- Fire retardant materials
- Expired or obsolete pesticides, fertilizers, fungicides
- Contaminated wastewater
- Polychlorinated biphenyls (PCBs)
- Organic cleaning solutions, antifreeze
- Petroleum, oils, lubricant, petrochemical waste
- Sewage sludge/animal waste products
- Pharmaceutical waste
- Plastic waste
- Expired or obsolete paints
- Energetics, explosives, and propellants
- Materials not suitable for transportation or disposal



CONTACT INFORMATION

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