EradiFluor

You need a way to destroy PFAS, not just concentrate or transfer them. Enter EradiFluor, Haley & Aldrich's efficient, cost-effective PFAS-destruction technology.

Why EradiFluor?

Efficient PFAS destruction with no harmful by-products

EradiFluor has shown a defluorination rate of almost 100 percent, exceeding that of many other technologies. EradiFluor treatment destroys long-, short-, and ultrashort-chain PFAS.

Many other technologies simply concentrate or transfer PFAS (also known as per- and polyfluoroalkyl substances), which means the substances still need to be disposed of.

EradiFluor **destroys PFAS with no harmful by-products** (e.g., perchlorate and bromate) that would require additional expensive treatment.

Lower energy use

EradiFluor relies on ultraviolet (UV) light and common chemicals to destroy PFAS. This process operates under ambient pressure and low temperature (less than 60 degrees C) and uses less energy than other technologies — saving money and supporting sustainability goals.

Safer to operate

The technology operates under ambient pressure and in low temperatures, unlike the many alternative destructive technologies that require high temperature and high pressure — and hence special health and safety measures — to operate.

Flexible, scalable implementation

Customers can build as many small-footprint units as needed on-site or can ship waste to a central location.

Backed by highly competitive funding

We developed this technology with financial support from the Department of Defense's Environmental Security Technology Certification Program and the Air Force Civil Engineering Center, which require rigorous peer review and vetting.

Industrial and manufacturing facilities

Treat concentrated waste from any operations

Landfills

Destroy PFAS-rich leachate

Water treatment plants

Tackles PFAS in drinking water, wastewater, and concentrated waste

Military bases

Remediate drinking water near bases

Airports

Treat aqueous film-forming foam (AFFF) residue

What can EradiFluor treat?

- Membrane filtration rejectate
- Foam fractionate
- Industrial wastewater
- Ion exchange resin regeneration brine

- Activated carbon regeneration residue
- AFFF rinsate residue
- Residue from soil washing
- Other concentrated PFAS waste

How does EradiFluor work?

UV light reacts with sulfite under elevated pH to produce highly reactive hydrated electrons that break down carbon-fluorine bonds in PFAS. Depending on waste sample properties, optional pretreatment and posttreatment steps using an advanced oxidation process can be added to improve the treatment's efficiency. Users can send the effluent from EradiFluor to the influent of a separation treatment process for further concentration or discharge following a polishing treatment step. Watch the animation below to see this process in action: