About Us

Our company has been performing Groundwater Remediation and Wastewater Treatment since 1985. We have worked through-out the world Treating groundwater and Surface water contamination and waste water .

We have complete Seven project and have 5 more under contract. Below are the highlights.

- **1.1 million PPT of PFOS and reduced it to below 70 PPT**
- **600 GPM PFAS to non detect at a DOD Facility**
- **1050 GPM to non detect at a DOD Facility**

Let our expertise solve your most difficult problems

What is PFAS

PFOA and PFOS are fluorinated organic chemicals that are part of a larger group of chemicals referred to as perfluoroalkyl substances (PFASs). PFOA and PFOS have been the most extensively produced and studied of these chemicals. They have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains. They are also used for firefighting at airfields and in a number of industrial processes.

PFOA & PFOS Drinking Water Health Advisories

Scientists have found PFOA and PFOS in the blood of nearly all the people they tested. Drinking water is a source in the small percentage of communities where these chemicals have contaminated water supplies close to airfield at which they were used for firefighting.

To provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, EPA established the health advisory levels at 70 parts per trillion. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level. This health advisory level offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

Information Needed for IX Design for PFC Removal

Inlet Information Needed:
TOC - ppm
VOC - ppt
Individual PFCs – ppt

Is water pretreated by an Air Stripper?
Target Reduction Level – ppt
Flowrate – gpm (m3/h)
Volume of water treated daily (GPD , m3/d)

Background Water Chemistry:
Sulfate
Nitrate ppm as N or NO3 (specify which)
Bicarbonate alkalinity
Chloride

Uranium
Perchlorate
Chromate
Arsenic

Purolite

Call 239-272-6655
Email BZ@pfos-pfoa.com

Help provided by Purolite

- Access to IX specialist
- Evaluate Treatment Options
- Single Use resin
- Regenerable resin option
- Recommended EBCT
- Lead-Lag Vessel Design
- Estimated Capacity
- CAPEX estimate
- Operating Cost estimate
- NSF/ANSI-61 certified resins

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600 gpm System ↗

1050 gpm System →

. ION EXCHANGE

Ion Exchange is often used in reducing metals and cations in groundwater remediation and Wastewater Treatment. It now is a proven treatment for PFAS in groundwater remediation and surface water.

Ion exchange is a very simple method for treating PFOA and PFOS Water is taken from the source and processed through a Ion Exchange media vessel. EPA Drinking water standards is 70 parts per trillion. The PFA694 has the capabilities of 5 or less parts per trillion in a single pass . It is currently the most cost effective way of treating PFOA and PFOS in water treatment

Point of Entry Systems

FA694 Polystyrenic Gel, Potable Water Grade

PRINCIPAL APPLICATIONS · Removal of perfluoroalkyl substances
ADVANTAGES · Very high operating capacity · Excellent kinetics . Tremendous absorption and Ion exchange properties .

800 gpm System

but also future guidelines

Specifications

FA694E Polystyrenic Gel, Potable Water Grade

PRINCIPAL APPLICATIONS · Removal of perfluoroalkyl substances
ADVANTAGES · Very high operating capacity · Excellent kinetics
REGULATORY APPROVALS :

Certified by the WQA to NSF/ANSI-61 StandardPFA694 meets EPA Removal Criteria and Domestic Wells

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The point in your home where water enters is called Point Of Entry (POE). There are several water sources for your home, domestic well, municipal or private well supply, or municipal supply from an open water source. Any of these sources can be contaminated with PFAS and may call for POE Treatment. Our company has developed highly efficient filters to treat PFOS, PFOA and other byproducts in water and get them down to less than 35 ppt *, which is below the current EPA advisory and the NJ Standard of 40 ppt. At 80 lbs ,10" diameter and only 59' Tall it is easy to install.

At the Heart of our System is **Purofine** PFA694E ion exchange media. Unlike Carbon Systems it , our ion exchange media **Exceeds** EPA and State Regulations Removal Criteria not only for today

POINT OF ENTRY Systems

For HOME AND BUSINESS

CARBON TREATMENT for PFAS

We provide Carbon Vessels, Carbon Systems and changeouts. We carry carbon designed for PFOS and PFOA treatment . The details on the carbon are below. Call us today for any of your wastewater treatment or groundwater . remediation projects at 239-272-6655.

Activated carbon can be used in a variety of liquid phase applications for the removal of dissolved organic compounds. **SACS** has been formulated specifically for PFOS-PFOA water treatment In a recent lab test **SACS** has 50% better capacity than bituminous carbon. Unlike Bituminous Carbon, with coconut shell carbon you do not run the risk of Arsenic added to the water that you are trying to treat. **SACS** is the perfect solution for treating drinking and process water purification, wastewater treatment, and food, pharmaceutical, and industrial purification

Features / Benefits

• Produced from a high quality Coconut Shell Carbon resulting in a consistent, high quality product.
• Carbon granules are uniformly activated through the whole granule, not just the outside, resulting in excellent adsorption properties and constant adsorption kinetics.
• The structure ensures proper wetting while also eliminating floating material.
• High mechanical strength relative to other raw materials,
thereby reducing the generation of fines during backwashing and
hydraulic transport.
• Carbon bed segregation is retained after repeated backwashing,
ensuring the adsorption profile remains unchanged and therefore
maximizing the bed life.
• High density porosity carbon resulting in a greater adsorption capacity per
unit volume.
• Bed volumes before break through based on out test is **50%greater** then bituminous products.
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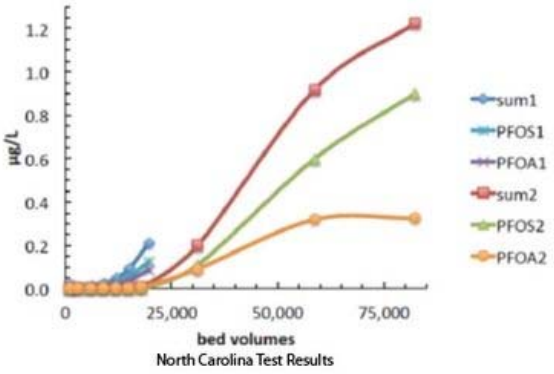

Electrolytic Precipitation (EP) / Electrolytic Oxidation (EOX) / Electro Coagulation (EC)

Electrolytic Technologies are used for treatment of PFOS-PFOA in groundwater and wastewater applications.

Electrolytic Technologies are based upon the basic principles of Electrolysis, Adsorption and Co-Precipitation.
technologies use a low Voltage electric current to destabilize multiple contaminates simultaneously via a single unit process. Both dissolved and suspended contaminates are removed including heavy metals, emulsions are split and water soluble hydrocarbons (BTEX) are oxidized. PFOA and PFOS compounds may be removed by two distinct pathways (1) Electrolytic Precipitation results in Adsorption of contaminates to the active flocculate generated within the reactor and Co-Precipitation of same and (2) Electrolytic Oxidation of contaminates Directly to the Anode surface and Indirectly by subsequent reaction with secondary oxidants formed within the Reactor.

Electrolytic Technologies use low cost electrolysis for treatment eliminating the disposal of hazardous by-products resulting from typical chemical treatment technologies.

Dependable Results

– Quality effluent with lower metal concentrations those attainable with chemical precipitation.

– Eliminates Chemical Reagents: No pH adjustment or Chemical Coagulants

– Easy retrofit into existing treatment infrastructure to improve performance, re liability and reduce costs