



Water Testing Glossary

AFFF (Aqueous Film Forming Foam): used to fight fuel-driven fires, and is often a source of PFAS contamination at military bases, airports, and other fire or spill sites.

GAC (Granulated Activated Carbon filter): can be used to remove lots of different water contamination, including PFAS. It can be a POET (Point of Entry Treatment System, a whole-house filter), a POU (Point of Use filter, usually under the sink), or other location. But you should be sure that the filter can take out PFAS as well as other contaminants. GAC filters do need to be replaced and disposed of when they fill up with chemicals and other water contaminants.

PFAS (Per- and Polyfluoroalkyl Substances): a class of over 9,000 highly persistent and toxic chemicals used in many industrial processes and consumer products. Usually, when you see PFCs, they are referring to the same class of chemicals.

Reverse Osmosis (RO): filtration system which removes and then discharges the PFAS in a concentrated wastewater stream.

PPE (Personal Protective Equipment): including firefighter turnout gear which is required to contain PFAS according to the National Fire Protection Association.

WWTP/WWTF (Wastewater Treatment Plant Wastewater Treatment Facility): removes contaminants from wastewater and sewage streams, although they are not effective at filtering all PFAS. Some PFAS end up in sludge (biosolids), and some are discharged in the treated effluent.

Chemical classes: groupings of related chemicals by similar features (like their carbon-fluorine structure). Rather than evaluating chemicals one at a time, the class-based approach allows for efficient decision-making based on an entire group of chemicals and helps scientists and policymakers to better understand the properties of these chemicals, where they are used, and how they can be avoided.



Endocrine disruptors: chemicals that can interfere with the endocrine (hormonal) systems, and can cause cancers, birth defects, and other developmental disorders. PFAS are a common endocrine disruptor.

Long-chain PFAS: contain six or more carbon atoms in the molecule such as PFOA and PFOS. Long-chain PFAS have been found to bioaccumulate and biomagnify more than short-chain PFAS. Long-chain PFAS can remain in your body for years before being excreted.

Parts per billion (PPB): can also be written as $\mu\text{g}/\text{kg}$ which means microgram(s) per kilogram. This is the standard measurement for PFAS concentrations in solids such as testing soils.

Parts per trillion (PPT): can also be written as ng/L which means nanogram(s) per liter. This is the standard measurement for PFAS concentrations in water.

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