

Per- and Polyfluoroalkyl Substances (PFAS) (PFNA, PFOA, PFOS)

What are PFAS?

PFAS are a family of thousands of chemicals that vary widely in their chemical and physical properties, as well as their potential risks to human health and the environment. They are persistent, bio accumulative, and not easily broken down, and are water soluble. PFAS are a class of manmade chemicals that have been used to make fluoropolymer coatings and products that are oil and water repellent such as Teflon®, StainMaster® carpets, Tyvek®, Scotchgard®, and GoreTex®. They have also been used to make surfactants that are used in firefighting foams and mist suppressants for metal plating operations. Production by major US manufacturers of PFOA, PFNA, PFOS, PFHxS and other long chain homologues has ended. However, these compounds are still produced in other countries and can be contained in products available for purchase in the US.

What are the known health effects?

PFAS has been linked to issues effecting the liver, endocrine system, reproductive system, cardiovascular system, as well as immunological and developmental issues.

How does exposure occur?

PFAS are released to the air from a variety of sources and are dispersed throughout the world, leading to contamination of soils and surface water, and eventually ground water which can then end up in water supplies. PFAS also accumulate in plants from contaminated soils and groundwater, and in fish from surface waters. Additional exposure can occur from eating food that was packaged in material that contains PFAS, as well as using some consumer products such as non-stick cookware, stain resistant carpeting and water repellent clothing.

Is this contaminant regulated?

PFAS are not currently regulated in drinking water by USEPA; however, there is a federal health advisory of 70 ppt (parts per trillion) for PFOA and PFOS.

NJDEP recently established limits in drinking water for some PFAS:

- PFNA 13 ppt, effective January 1, 2020 - No detections in water supplied to MLTMUA customers.
- PFOA 14 ppt, effective January 1, 2021 – Detected in the water supplied to MLTMUA customers with the highest level at 7.8 ppt, which is in compliance with the NJDEP limit.
- **PFOS 13 ppt, effective January 1, 2021 – Detected in the water supplied. Water supplied by WMUA had a maximum detection of 16 ppt from WMUA's well 5A; this exceeds the new NJDEP limit. However, since the water we receive is from a blend of sources (several of WMUAs wells), additional sampling at the interconnection between our systems was performed. The highest test result at the point of entry into the Mount Laurel water distribution system was 12 ppt, which is below the NJDEP limit. Due to the exceedance of the limit within their piping system, WMUA will be required by NJDEP to either install treatment devices or remove the well from service. Timing will be dictated by the NJDEP; at this point we expect that WMUA well 5 to be in compliance sometime in 2023. NJDEP considers the water supplied to customers of Mount Laurel MUA to be in compliance with the limit.**

How can I reduce exposure?

Avoid eating contaminated fish. PFAS can be removed from drinking water by Granular Activated Carbon and Reverse Osmosis. Because PFAS are at low levels in some foods and in the environment (air, water, soil), eliminating exposure is unlikely.

Additional information regarding PFAS, including the information referenced, can be found at:

https://www.atsdr.cdc.gov/pfas/docs/pfas_fact_sheet.pdf

https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf