

Trifluoroacetic Acid (TFA): Overview and Next Steps

CFPUA Board Meeting

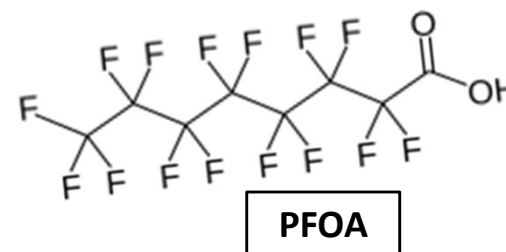
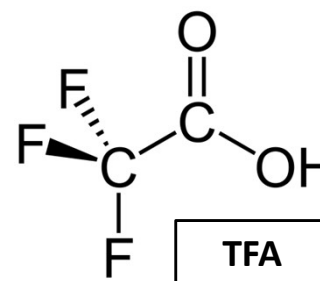
Beth Eckert, CFPUA Deputy Executive Director

Linear Assets and Environmental Management and Sustainability



What is TFA?

- ▶ TFA is an ultrashort-chain (2 carbon chain) PFAS.
- ▶ A terminal degradation byproduct, TFA is the most abundant PFAS in the environment.
- ▶ Little research exist on potential health risks; two European countries have established health guidelines:
 - ▶ Germany: 60,000 ppt based on chronic toxicity in rats
 - ▶ Netherlands: 2,200 ppt based on its link to PFOA (legacy PFAS)
- ▶ TFA has been found at Chemours' Fayetteville Works site as part of the Consent Order assessment activities.



Regional Research on TFA

- ▶ Recently staff were briefed on the presence of TFA in the Cape Fear River by Dr. Knappe of N.C. State University.
- ▶ Dr. Knappe's team developed custom analytical methods for TFA and found:
 - ▶ TFA at more than 100,000 ppt in historic (~2017) samples of raw water from the Cape Fear River. Dr. Knappe expects this data, along with results of analysis of blood serum, to be published later this year.
 - ▶ TFA at 1,630 and 1,660 ppt in 2024 samples of finished water from a residential customer's tap in the Sweeney WTP service area. *Both are below the European health guidelines.* Publication of this data is not expected for a year or more, Dr. Knappe said.



Next Steps for CFPUA

- ▶ Later this week staff will add a summary on TFA to our website.
- ▶ Our current contract lab does not analyze for this compound, but staff is investigating testing options.
- ▶ Dr. Knappe's research indicates Sweeney's GAC system does not effectively remove TFA. Staff continues to work with the PFAS Collaboratory on novel sorbents to determine their effectiveness on ultrashort-chain PFAS.



Thank You

Beth Eckert

Beth.Eckert@CFPUA.org

