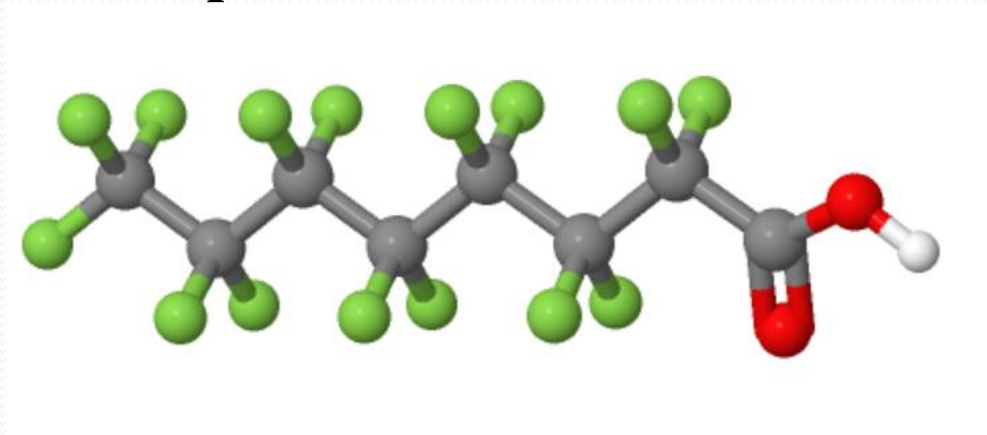


PFOA and PFOS in Drinking Water

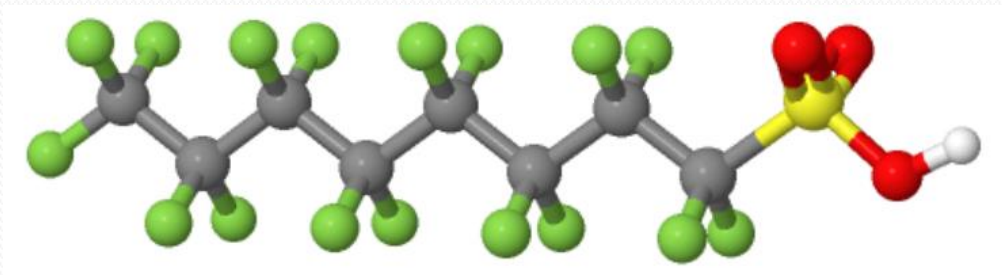
John Lovie
Island County WRAC

PFOA and PFOS

- PFOA perfluorooctanoic acid



- PFOS perfluorooctanesulfonic acid



Timeline

- 1947 - 3M invents PFOA
- 1951 - DuPont starts purchasing PFOA for use in making Teflon at Parkersburg WV
- 1951 – 2000 3M and DuPont conceal test results showing PFOA harmful to humans and wildlife
- 2000 – 3M stops making PFOA; DuPont starts own manufacturing plant in Fayetteville NC
- 2000 – health data sent to EPA
- 2005 – DuPont settles with EPA. Agrees to phase out production of PFOA by 2013

Timeline

- 2009 – EPA issues provisional health advisory limits for PFOA of 400 ppt and for PFOS of 200 ppt
- 2012 – EPA adds PFOA and PFOS (and other PFASs) to the Third Unregulated Contaminant Monitoring Rule (UCMR 3) List 1
- 2013-2015 – EPA implements a two year monitoring program in water systems serving more than 10,000 people
- 2015 – PFOA found in 94 water systems in 27 states

Timeline

- 2015 – Researchers found that “Detection of Poly- and Perfluoroalkyl Substances (PFASs) in U.S. Drinking Water Linked to Industrial Sites, Military Fire Training Areas, and Wastewater Treatment Plants”
- May 2016 – EPA introduces a drinking water health advisory of 70 ppt combined for PFOA and PFOS
- May 2016 – Military starts testing at 664 sites where they have conducted fire or crash training
- December 2016 – PFOA and PFOS found at NAS WI and OLF

AFFF in Fire Departments

- SWFD uses ANSULITE Low Viscosity 3x3 ARC AFFF to fight occasional fuel fires.
- This product was transition from C8 chemistry to C6 in 2012, but old stock may still be in use

AFFF on Washington State Ferries



AFFF on Washington State Ferries

- ANSULITE 3% AFFF Concentrate AFC-3A, part number 55800
- Current PFOA status of this material unknown

Around the Country

- Some other sites were tested earlier and states have had more time to react
 - New Jersey – Drinking Water Quality Institute has recommended an MCL of 14 ppt to state DEP
 - Vermont DOH has an advisory limit of 20 ppt. State is doing its own testing and is offering blood testing
 - New York State has funded alternative water sources and carbon filtration around Newburg and Hoosick Falls, and is offering blood testing.
 - California – intent to list Prop 65 and biomonitoring program

Washington State Plan

- Ecology, as part of the HWTR's (Hazardous Waste and Toxics Reduction Program) PBT (Persistent Bioaccumulative Toxins) Initiative, is establishing a PFAS CAP (Chemical Action Plan) Advisory Committee, which will advise Ecology and DOH.