Sampling PFAS in Finished Drinking Water, POTW Effluent, and Biosolids
September 2019

As Members are aware, PFAS, a class of ubiquitous carbon-fluorine chain organic chemicals typically found in low concentrations in wastewaters, is raising questions regarding human health impacts and is receiving a lot of attention nationally.

In Virginia, DEQ and VDH representatives have stated that they are looking to EPA to lead in this developing area. In addition, DEQ will also be convening an internal team to review emerging contaminants generally, with PFAS being one of those issues. DEQ and VDH are also following the work that is being done by EPA and the U.S. Navy in assessing PFAS potential on military bases. There are four federal military facilities in Virginia that have potential PFAS issues. The Navy has taken the lead in testing drinking water wells near these facilities and is providing alternate drinking water to homes that have tested above the EPA health advisory of 70 parts per trillion (ppt).

Across the U.S., a number of university researchers have become engaged and are asking for access to POTWs, water plants, and municipal landfills for sampling. Several state agencies are requiring various sampling practices as well. Here are a few of those requirements:

- North Carolina is testing all public water system intakes/wells for PFAS. So far, only a small percentage of intakes tested have been “high” in PFAS levels.
- Michigan engaged in even more extensive testing for PFAS, sampling 1,741 individual community water supplies, schools, daycares, and tribal entities. DEQ’s analysis revealed that 89.9% of the facilities sampled had non-detects for all of the 14 PFAS compounds analyzed (reporting limit 2 ng/L). Out of the remaining roughly 10% with some PFAS detected, only two water supplies exceeded the federal health guideline of 70 ppt for PFOS+PFOA. Additionally, Michigan has required every POTW to test its influent and effluent for exceeding the state’s PFAS water quality standards (WQS) for certain PFAS compounds, the most stringent of which being 12 ppt for PFOS. As of January 2019, 22 of 95 POTWs tested had PFOS levels in their effluent that exceeded the Michigan WQS, with 7 exhibiting PFOS concentrations of 50 ppt or greater.
- Maine has required all POTWs which land-apply biosolids to have their biosolids tested for PFAS.
- The Wisconsin Department of Natural Resources will soon require 170 POTWs to test treated wastewater. WDNR is finalizing standards to use private labs to analyze water for PFAS this summer. The Madison (WI) Metropolitan Sewerage District will also decide in the coming months whether to add PFAS restrictions to industrial user permits for 19 industrial customers.

We will continue to monitor national and Virginia developments and report as warranted.