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Pennsylvania sets limits on two 'forever chemicals' in drinking water

By Timothy B. Wheeler, Bay Journal News Service

Following through on a move begun more than three years ago, Pennsylvania has set enforceable limits on two "forever chemicals" found to be contaminating many of the state's drinking water systems.

The state's Environmental Quality Board, in a rulemaking published Jan. 14, established maximum contaminant levels in drinking water for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS).

"We are still learning more about these chemicals, and these new [maximum levels] are a step in the right direction," said Ramez Ziadeh, acting secretary of the Pennsylvania Department of Environmental Protection.

Those two compounds are among the most thoroughly studied of a group of highly persistent chemicals called per– and polyfluoroalkyl substances, or PFAS. Studies indicate that exposures to certain PFAS can cause a variety of health problems, including decreased fertility, developmental delays in children and reduced immunity to infection.

Beginning Jan. 1, 2024, all water systems serving more than 350 people must begin monitoring for PFOA and PFOS, while smaller systems have until the beginning of 2025.

PFOA and PFOS have been used since the 1940s in a wide array of consumer and industrial products, including nonstick cookware and waterproof and stain-resistant fabrics. Their use in firefighting foam, especially on military bases and at airports, has led to widespread contamination of ground– and surface waters.

With reports of PFAS being found in drinking water across Pennsylvania, Gov. Tom Wolf signed an executive order in 2018 calling for a comprehensive state response. Statewide sampling detected PFOA and PFOS in about one-fourth of the 412 water systems checked.

Safe drinking water standards are generally set at a national level, but PFAS were unregulated when Pennsylvania began to act.

The U.S. Environmental Protection Agency in 2016 had set a nonbinding health advisory limit of 70 parts per trillion, combined, for PFOA and PFOS.

Last June, the EPA updated its health advisories, setting a new recommended safe level for PFOA of 0.004 ppt and 0.02 ppt for PFOS. Agency officials had pledged to propose maximum contaminant levels by the end of 2022 but delayed that to March 2023, with final action projected to take place by the end of 2023.

Meanwhile, amid growing scientific evidence of health effects at much lower levels of exposure, some states have acted to establish their own limits. Pennsylvania joins seven other states, including New York, that have set maximum contaminant levels or some other enforceable ceiling on one or more PFAS compounds. Delaware is expected to finalize limits this year.

The limits Pennsylvania adopted — 14 parts ppt for PFOA and 18 ppt for PFOS — are much less stringent than the new EPA recommendations, but it remains to be seen what the federal agency's regulatory limits will be. DEP said it will adjust its contaminant levels to comply if the EPA sets lower national limits, and it will review the science if the EPA's are less stringent.

Of the more than 400 water systems sampled by DEP, 25 had PFOA in excess of the new state limit, while 22 exceeded the PFOS limit. Groundwater-based systems can sometimes reduce levels by switching off contaminated wells, but the cost of filtration equipment can range from \$47,000 to \$3.25 million, DEP estimated, depending on the size of the water system.

The state has started giving financial assistance to water systems with some of the worst PFAS contamination and expects to do more. In June, the Pennsylvania Infrastructure Investment Authority (PENNVEST) provided \$6.7 million to install a granulated activated carbon system to treat PFAS levels at Harrisburg International Airport.

Last week, PENNVEST awarded \$5.5 million to a private water company to put treatment systems on two wells with levels in excess of the new state limits in Montgomery County near Philadelphia. State officials say they expect Pennsylvania to receive \$256.5 million from the two massive federal funding measures Congress passed last year, which could be used toward addressing PFAS contamination.

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