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New Jersey Makes National Regulatory History
Safe Drinking Water Standard adopted for PFNA
Public Demanded Safe Water, Persevered for Protection

Trenton, NJ – As the storm of controversy rages nationally where toxic Per- and Polyfluoroalkyl Substances (PFAS) have been found in drinking water, New Jersey is the first state to address the water crisis by the adoption of regulations that requires drinking water suppliers to remove a PFAS compound. A safe drinking water standard, or maximum contaminant level (MCL), has been established for one of the most toxic perfluorinated compounds (PFCs): perfluorononanoic acid (PFNA). Read the NJDEP rule and comment document here: https://www.state.nj.us/dep/watersupply/g_reg.html

Unregulated at the federal level and found in New Jersey’s drinking water at concentrations higher than other states, particularly in the Delaware River Watershed in and around Gloucester County, it became clear that the state had to step out on its own to protect public health and the environment here by establishing a mandatory safe drinking water standard or MCL.

“New Jersey has the responsibility to assure that the water people drink is safe and won’t make them or their families sick. Today the state has met the challenge to protect people from exposure to PFNA, one of the most toxic perfluorinated compounds known. This historic moment has been a long time coming and at times looked impossible but communities persevered in their demand for clean water and New Jersey provided the deep scientific research and analysis needed, culminating in this essential rulemaking that mandates a safe drinking water standard, the first in the nation for any PFAS,” said Tracy Carluccio, Deputy Director, Delaware Riverkeeper Network.

“New Jersey has often been an important leader when it comes to environmental protection. On the issue of perfluorinated compounds New Jersey has led in the science and now
in providing critical community drinking water protections. We hope other states will quickly follow suit,” said Maya van Rossum, the Delaware Riverkeeper.

NJ Department of Environmental Protection (NJDEP) has also adopted a maximum contaminant level (MCL), or safe drinking water standard, for 1,2,3-trichloropropane (1,2,3-TCP), another extremely dangerous unregulated chemical found at very high concentrations in some New Jersey drinking water. Both MCLs were recommended by New Jersey’s Drinking Water Quality Institute, the body charged with developing MCL recommendations under the New Jersey Safe Drinking Water Act. The Institute is nationally recognized for its scientific expertise and reliable analysis. Both PFNA and 1,2,3,-TCP pose significant health threats when ingested and can be removed from drinking water with currently available technology.

Delaware Riverkeeper Network (DRN) recommended a MCL for PFNA that is stricter than the 13 ppt adopted today, based on an independent toxicological analysis DRN commissioned. DRN advocated for a MCL of 3 to 5 ppt to protect the fetus and young children, who can suffer developmental damage that lasts a lifetime or develop disease later in life as a result of the early exposure. DRN advises water suppliers to voluntarily provide treatment for PFNA if any amount is detected to ensure truly safe drinking water for their customers.

DRN also recommended a MCL of 5 ppt for 1,2,3,-TCP rather than the 30 ppt adopted today, based on the most up to date science and health effects analysis completed in California, which recently adopted a MCL of 5 ppt for the chemical. 1,2,3,-TCP is both mutagenic and genotoxic and is found at dangerously high concentrations at Moorestown, Burlington County. DRN is calling on NJDEP to thoroughly and swiftly complete its investigation of the newest information for the chemical.

“1,2,3,-TCP must be removed to the lowest level that technology can achieve, as has been done in California’s rulemaking, to provide protection for those who are facing the nightmare of contamination,” said Tracy Carluccio.

Other changes for which DRN advocated include immediate monitoring for PFNA in all water systems rather than the phase-in that was adopted, and considers a slow phase-in to be an unjust burden on communities that may unknowingly have contaminated water but are not going to be immediately sampled on a regular basis. Also, DRN wants PFNA to be added to the contaminants that must be tested for and removed under the NJ Private Well Testing Act because people with private wells could be drinking water contaminated with PFNA but they don’t know it. DRN contends that all New Jerseyans need equal protection, whether they are private well users or are on public water systems and recommends that all water suppliers, no matter whether they are required immediately to sample for PFNA or not, begin immediately to test for the chemical and that private well users pro-actively sample their wells for the compound if local contamination is suspected.

PFNA is a long-carbon chain compound, consisting of 9 carbons, making it very durable. It is a perfluorinated compound (PFC), and like other PFCs, it doesn’t break down or biodegrade, making it a permanent threat in the environment. That’s why it is still in the ground and surface water around where it was discharged, even if it is no longer being used in manufacturing. It is
critical that the MCL is adopted because there is no way to avoid exposure to PFNA unless it is removed by treatment from drinking water, which is the primary source of exposure for people.

PFNA is highly toxic at very low doses, more toxic than most other PFCs or PFAS compounds. It builds up in the blood from very small concentrations in drinking water and is difficult for the body to excrete. PFNA remains in a person’s body for many years after exposure. There it can have devastating health effects, including liver damage, metabolic and immune system function problems, increased cholesterol, and development defects in fetuses and young children.

BACKGROUND

PFNA is in a large family of perfluorinated compounds and was first discovered in the Delaware River Watershed in Gloucester County, NJ. DRN attempted for years to obtain through the open records law a New Jersey Department of Environmental Protection (NJDEP) PFC occurrence report completed in 2009-2010 that was being suppressed by the Christie Administration. The Administration had shut down the NJ Drinking Water Quality Institute in 2010, effectively stopping any state progress to develop needed safe drinking water standards for unregulated contaminants. DRN finally got the sampling data on PFCs in the state’s drinking water systems in 2013 and exposed it publicly.

The raw groundwater well in Paulsboro near the Solvay plastics manufacturing plant in West Deptford was sampled as part of the 2009-2010 occurrence study conducted by NJDEP. The Paulsboro groundwater showed an alarmingly high concentration of 96 ppt of PFNA – in fact, when DRN researched the results, it was the highest level of PFNA documented anywhere in the world. In subsequent sampling in 2013, PFNA was found at 140 ppt in raw water and 150 ppt in finished water in the water supply well in Paulsboro. Sampling done of surface water by the Delaware River Basin Commission during monitoring in 2007-2009 revealed a level of PFNA of 976 ng/L, the highest of any PFC they sampled for, in the lower part of the Delaware River at a river mile in the vicinity of the Solvay plant.

Further investigations in 2013-14 resulted in 5 area municipalities shutting down contaminated wells, people being put on bottled water, and emergency remediation. After the expose of the contamination, New Jersey reconvened the Drinking Water Quality Institute in April 2014\(^1\) that had been shuttered in 2010. The Institute’s agenda, at the direction of NJDEP, was to develop MCLs for 3 perfluorinated compounds – PFNA, PFOA, and PFOS. When a crisis emerged in Moorestown, NJ due to the presence of 1,2,3,-TCP in drinking water, that chemical was added to the agenda.

The Institute first worked to research PFNA. After extensive study, public input and discussion, the Institute issued a recommendation to NJDEP for PFNA of 13ng/L\(^2\) (13 ppt) in June 2015. Frustratingly, more than three years have passed but, finally, today the Murphy administration has adopted the MCL for PFNA. Some water systems in the Gloucester County

\(^1\) [http://www.nj.gov/dep/watersupply/g_boards_minutes.html](http://www.nj.gov/dep/watersupply/g_boards_minutes.html)
area have Granular Activated Carbon (GAC) treatment systems in place but not all are using the MCL of 13ppt as the trigger for treatment.

In general, GAC systems, such as in Paulsboro, remove PFNA completely to a non-detect level. The Borough of Paulsboro filed a Notice of Intent to Sue against Solvay in 2014, which led to a settlement requiring Solvay to install treatment on Paulsboro’s well water system to remove the contaminant, installed in 2016. NJDEP also provided point-of-entry water treatment systems in some private wells around Solvay. Other municipalities have taken action to either install GAC treatment or purchase or blend water to remove or lower the concentration of PFNA; now all of these public systems will be required by regulation to treat drinking water to meet the 13ppt MCL.

Rigorous research by the NJ Drinking Water Quality Institute has also resulted in the recommendation of MCLs for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS)\(^3\), the toxic PFAS compounds that have gripped the nation because of their prevalence and high concentrations in drinking water, released by manufacturing and the use of firefighting foam by the military at up to 600 Department of Defense facilities across the country. Unfortunately for New Jersey, the DWQI recommendations still have not been acted on by NJDEP, despite these toxics being been found in most of the water supplies tested in the state. That means millions of New Jerseyans every day are still drinking water contaminated with these two PFAS compounds, which are known to be associated with several diseases, including cancer.\(^4\) DRN calls for immediate action by NJDEP to adopt MCLs for PFOA and PFOS to address the growing crisis.

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\(^3\) [https://www.state.nj.us/dep/watersupply/g_boards_dwqi.html](https://www.state.nj.us/dep/watersupply/g_boards_dwqi.html)

\(^4\) [http://www.c8sciencepanel.org/index.html](http://www.c8sciencepanel.org/index.html)