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Ms. Sarah Pillsbury
Department of Environmental Services
29 Hazen Drive; P.O. Box 95
Concord, New Hampshire 03302-0095

Via: E-Mail: Sarah.Pillsbury@nh.des.gov

Reference: Proposed Establishment of PFAS MCLs

Dear Ms. Pillsbury:

Thanks for the opportunity to provide input. I do not have any technical papers to offer for DES consideration in establishing Maximum Contaminant Levels (MCLs) for the four PFAS compounds (PFOA, PFOS, PFNA, and PFHxS), but I do want to offer comments as a lifelong citizen of this state, and a current resident of Merrimack. As you know, I have attended a PFAS MCL stakeholders meeting, several public hearings with DES presentations, and I am a commissioner at the Merrimack Village District (MVD) water district. However, I am only speaking as a citizen, and as a water supply engineer with 29 years of professional experience.

The ATSDR report released this summer contains the most comprehensive assessment and references on the PFAS matter. The preface of the ATSDR report suggests that minimum risk levels (MRLs) identified in the report “are intended to serve as screening levels to identify potential health effects that may be of concern at hazardous waste sites.” If PFAS concentrations are found at a site to be above MRLs, and therefore, above screening levels to identify potential health effects that may be of concern at a hazardous waste site, how can PFAS concentrations above those MRLs be considered safe in drinking water, if they are of concern at hazardous waste sites? It seems intuitive that MRLs at a hazardous waste site should be of less concern than those same levels found in the drinking water of tens, if not hundreds of thousands of citizens in our state. With the comprehensive content in the ATSDR report, and because of this inconsistency of MRLs between hazardous waste sites and safe drinking water, it is imperative, in my opinion, that DES incorporate the MRLs found in the ATSDR report as MCLs! Any MCLs that are established above those MRLs will continue to perpetuate this inconsistency between PFAS found at hazardous waste sites versus what is allowed in our drinking water.

At the PFAS stakeholders MCL meeting in Litchfield, DES presented an outline of aspects to be considered in a PFAS cost and benefit analysis, in establishing PFAS MCLs. DES will calculate PFAS costs for installation of PFAS treatment across the state. However, I would recommend to include an estimated allowance in that calculation for treatment reimbursement by the potentially responsible parties (PRPs) for those sites that will have known PRPs, or that will likely identify PRPs after the MCLs are established. As you may know, PFAS stays in the soil and groundwater for a very very long time, which will afford impacted water suppliers to investigate PFAS

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contamination sources, and seek restitution from PRPs. For example, all of MVD's water supply wells have been impacted by PFAS contamination above the ATSDR MRLs, and several sources in Amherst, and one in Merrimack have been identified. However, until MCLs are lowered down to MRLs, there is no violation beyond just one site, and no restitution is likely. Lowering MCLs to MRLs will result in clear MCL violations, and will provide the catalyst necessary for investigation and identification of PRPs, likely leading to some degree of restitution.

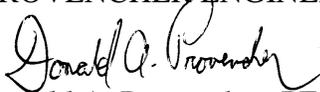
On the benefit side of the equation, the main cost savings by lower MCLs will be the savings in the cost of healthcare, with less cancers and other related diseases identified in the DES handout entitled "Draft List of Health Effects 10/15/2018" (attached). However, in addition to the healthcare savings, there is a significant cost savings of lost wages, and most importantly, the sociological cost of sickness and death, not only to one's own physical and psychological impacts, but also to those of their surrounding families and friends.

With the PFAS issue being an emerging field of contaminants, there is likely not as much literature linking PFAS levels in drinking water or in blood serum to health effects, as compared to other better known contaminants. Health effects may not be known for years to come. Consequently, DES should not dismiss the limited amount of literature as lack of evidence of effects of water and blood PFAS to known health effects. Instead, DES should err on the conservative side and establish MCLs consistent with the ASTDR report.

DES should consider those populations that have already been exposed beyond the national average exposure, particularly in communities with known contamination, such as southern New Hampshire and the seacoast. I want to remind you of the DHHS blood study of MVD customers which concluded that the average MVD customer's blood PFOA level is twice the national average. This means that our exposure puts us at a higher risk, and that should be factored into MCLs, as it is more critical to reduce PFAS exposure going forward for our exposed citizens.

Ultimately, until an MCL is set for all PFAS compounds as a class of contaminants, and until laws are passed requiring all new chemical formulations to be proven safe BEFORE they are allowed to be released into the environment, DES will continuously be in game of catch up, where the emitters of PFAS and other chemical substitutes will continue to reformulate new unregulated PFAS compounds, always staying a step ahead of regulations. This is an obvious loophole that flies directly in the face of all of the greatly appreciated work currently being done by DES and the legislature, and means that the anticipated beneficial effects on public health and safety may never be realized until those changes are made.

Very truly yours,
PROVENCHER ENGINEERING, LLC


Donald A. Provencher, PE
President / Member

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Draft List of Health Effects 10/15/2018

(Draft ATSDR Toxicological Profile: Appendix A and C-8 Study)

PFOA

- Pregnancy-induced hypertension/pre-eclampsia
- Liver damage, as evidenced by increases in serum enzymes and decreases in serum bilirubin levels
- Increases in serum lipids, particularly total cholesterol and LDL cholesterol
- Increased risk of thyroid disease
- Decreased antibody response to vaccines
- Increased risk of asthma diagnosis
- Increased risk of decreased fertility
- Small (<20 g or 0.7 ounces per 1 ng/mL increase in blood perfluoroalkyl level) decreases in birth weight
- Increased risk of ulcerative colitis (auto-immune disease)
- Increased risk of kidney and testicular cancer

PFOS

- Pregnancy-induced hypertension/pre-eclampsia
- Liver damage, as evidenced by increases in serum enzymes and decreases in serum bilirubin levels
- Increases in serum lipids, particularly total cholesterol and LDL cholesterol
- Increased risk of thyroid disease
- Decreased antibody response to vaccines
- Increased risk of asthma diagnosis
- Increased risk of decreased fertility
- Small (<20 g or 0.7 ounces per 1 ng/mL increase in blood perfluoroalkyl level) decreases in birth weight

PFHxS

- Liver damage, as evidenced by increases in serum enzymes and decreases in serum bilirubin levels
- Decreased antibody response to vaccines

PFNA

- Increases in serum lipids, particularly total cholesterol and LDL cholesterol
- Decreased antibody response to vaccines