pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

July 22, 2019

Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
EPA Docket Center, Office of Water Docket
Mail Code 28221T,
1200 Pennsylvania Avenue NW
Washington D.C. 20460

OW-Docket@epa.gov

Attn: Docket Nos. EPA-HQ-OLEM-2018-0846-0001

RE: Comments on EPA's Draft Method 8327 for Per-and Polyfluoroalkyl Substances (PFAS) Using External Standard Calibration and Multiple Reaction Monitoring (MRM) Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

Dear Administrator Wheeler:

The Pennsylvania Department of Environmental Protect (DEP or Department) submits this comment letter in response to the new analytical procedure for the validated method that covers analysis of 24 per-and polyfluorinated alkyl substances (PFAS) in prepared extracts of various matrices (e.g., liquids and solids) by liquid chromatography/tandem mass spectrometry analysis.

The Department's concerns and recommendations are as follows:

General

1. The scope states this method is approved for solid and chemical materials matrices. There is no solid matrix preparation method, thus testing has not been performed. The Department recommends that the EPA remove solid and chemical materials from the scope.
2. Although not included in the method, the Department recommends that the EPA require the collection of field blanks and the use of trizma for removing residual chlorine as described in EPA 537 and EPA 537.1.
3. The method specifies an external calibration routine. However, many laboratories find that an isotope dilution calibration model is more sensitive. The method should allow the use of other calibration routines such as isotope dilution or other internal calibration models.

Section 1

4. The analytes listed in the table in section 1.0 have different acronyms than those used for drinking water in EPA 537 and EPA 537.1. The Department recommends that:
    a. Perfluoroundeconoic acid should be listed as PFUnA and not PFUdA
    b. Perfluorotetradeconoic acid should be listed as PFTA and not PFTeDA.

Section 6

5. Section 6.2.3 states all supplies should meet blank criteria. The Department recommends that the EPA change "should" to "must". If glass or other supplies are allowed for use, the laboratory must be able to prove there are no interferences with the test.

Section 8

6. Section 8.0 states all sample collection, preservation and storage language are guidance. The Department recommends that the EPA make the listed collection, preservation and storage requirements that must be met. If these are not requirements, accredited laboratories would be allowed to take months to extract and analyze a sample.
7. Section 8.1 (and elsewhere throughout the method) strongly recommends not to subsample. The Department recommends that this be a requirement since data shows this is an issue (and the drinking water methods also do not allow subsampling for the same reason).

Section 9

8. Section 9.4 does not set requirements for an initial demonstration of proficiency. The Department recommends that the recommended 70-130% recovery and <30% RSD be requirements. If they can't be met, the analytes should not be run by this method.
9. Section 9.5.2 does not set a specific blank acceptance criterion. The Department recommends that the one half the LLOQ recommended should be a requirement. This is particularly important due to the high chance of interferences from supplies.
10. Section 9.9 gives guidance on the LLOQ. The Department recommends that since reporting is based on the LLOQ when all other quality control fails (including the initial calibration), the recommended 50-150% should be a requirement. Control charting of bad data would allow the reporting of inaccurate results.

Section 11

11. Section 11.3.1 states to calibrate the MS according the manufacturer but states acceptable performance "may be demonstrated" by evaluating several conditions. The Department recommends that if the laboratory is required to calibrate the MS according to the manufacturer, it should be required to meet all acceptance criteria established by the manufacturer. Additionally, the Department recommends that the requirements for instrument set up from EPA 537 and EPA 537.1 should be added to this method.

12. Section 11.3.2 Note states concentrations for salt forms are typically corrected to anion concentrations for reporting purposes. The Department recommends that include the equation for correcting salt forms to anion concentration in the calculation section.

13. Section 11.3.3 Note states quantitation must include both branched and linear isomers. The Department recommends that since this is a requirement, it should not be in a note but the in the text of the method.

14. Section 11.3.6 details information concerning initial calibrations. The Department recommends that since new EPA methods are replacing R and R-squared criteria with Relative Standard Error, only RSE should be in the method. Additionally, acceptance criteria for the levels should be required in the method.

15. Section 11.3.10 does not set a required acceptance criterion of the initial calibration verification. Suggestion: the recommended CCV criteria of +/- 30% should be required for the ICV.

16. Section 11.4.1 and 11.4.2 does not set a required acceptance criterion of the continuing calibration verification. The Department recommends that the recommended CCV criteria of +/- 30% should be required for the CCV.

17. Section 11.4.3 note 2 gives several "musts" concerning monitoring responses and demonstrating sensitivity. The Department recommends that these requirements should be removed from the note and added to the text of the method.

18. Section 11.5.2 states surrogates should meet the acceptance criteria set by the laboratory. The Department recommends that this should be a "must."

19. Section 11.6.2 does not give criteria for retention time. The Department recommends that the recommended +/- 10 seconds from the mid-level calibration standard of CCV should be a requirement.

20. Table 2A column for # of LCS/LCS pairs states RPD > 30%. The Department believes that this is likely supposed to be RPD < 30%.

Appendix B

21. Appendix B: section B4.3.4 states blank criteria can be used as a guideline for evaluating cleanliness. Suggestion: this should be "must." The blank, by definition, is what determines the "cleanliness" of the entire test.

22. Appendix B: section B11.1.3 Note requires changes when not collecting 5 mL of sample. Suggestion: this should not be a note but in the body of the method.

23. Appendix B: section B11.1.5 Note details a procedure for quantitative transfer of sample. Suggestion: this should be a requirement in the body of the method and not in a note.

Conclusion

Pennsylvania appreciates EPA's effort to expand PFAS testing capabilities through the proposed analytical method for wastewater and non-potable waters. When finalized, the method will

greatly assist state and local governments with protecting people from the harms associated with PFAS exposure.

Thank you for considering DEP's comments on EPA's proposed analytical method 8327. Should you have questions or need additional information, please contact Martina McGarvey, Director of Laboratories, by e-mail at mmcgarvey@pa.gov or by telephone at 717.346.8618.

Sincerely,

Patrick McDonnell
Secretary