

# **WDNR Discussion of PFOS/PFOA Sampling and Analytical Requirements**

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# Sampling Requirements

# Sampling Requirements

s. NR 106.995(1), Wis. Adm. Code

- Sample type may be either grab or composite – specify as part of the permit
  - “Grab sample” means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a 2-minute period. Where the term is used in connection with monitoring temperature or pH it means a single measurement. S. NR 218.04(10), Wis. Adm. Code.
  - “Composite sample” means a combination of individual samples of equal volume taken at approximately equal intervals not exceeding one hour over a specified period of time. S. NR 218.04(11), Wis. Adm. Code.

# Sampling Requirements

s. NR 106.995(1), Wis. Adm. Code

- Equipment Blank
  - Required IF using a composite sampler
  - “Equipment blank” means a sample collected by passing laboratory-verified PFAS-free water over or through field sampling equipment before the collection of field samples to evaluate potential contamination from the equipment used during sampling. s. NR 106.975(2), Wis. Adm. Code
- Field Blank
  - Not required per the permit (no reporting on DMR)
  - Labs may require field blank

# Sampling Requirements

s. NR 106.995(1), Wis. Adm. Code

- Comparability Samples were taken as part of data gathering for EIA
  - No statistical difference between grab samples of effluent and grab samples through composite sampler
  - HDPE or PP sample containers
  - Silicone tubing
- No hits on field blanks or equipment blanks

# Sampling Requirements

s. NR 219.04(2) Table F, Wis. Adm. Code

Parameter Number/Name	Container	Preservation	Maximum Holding Time
Per- and polyfluoroalkyl substances (PFAS)			
Aqueous samples	HDPE or PP	Cool, $\leq 6^{\circ}\text{C}$	28 days until extraction 30 days after extraction
Sludge (biosolids) samples	HDPE or PP	Cool, $\leq 6^{\circ}\text{C}$	28 days until extraction 30 days after extraction

“HDPE” is high density polyethylene; “PP” is polypropylene

- [\*PFAS methods and guidance for sampling and analyzing water and other environmental media USEPA\*](#)
- [\*PFAS Sampling Guidance \(michigan.gov\)\*](#)
- [\*11 Sampling and Analytical Methods – PFAS — Per- and Polyfluoroalkyl Substances \(itrcweb.org\)\*](#)
- [\*ITRC PFAS Sampling and Analysis - YouTube\*](#)

# Sampling Requirements - Summary

- Permit will specify either Grab or Composite – “default” to grab
- HDPE or PP containers
- Permit only requires equipment blank with composite samples

# Analytical Requirements



# Analytical Requirements

s. NR 106.995(2), Wis. Adm. Code

- Analysis shall be performed by a certified lab
  - Applicable PFAS compounds – aqueous matrix
  - Wisconsin Laboratory Certification Program in accordance with s. NR 149.41, Wis. Adm. Code

*Currently, there are 11 laboratories certified by the State of Wisconsin for PFAS testing in wastewater. The list of laboratories can be found at:*  
<https://dnr.wisconsin.gov/topic/Contaminants/Labs.html>

# Analytical Requirements

s. NR 219.033, Wis. Adm. Code

- At this time, there is no promulgated EPA PFAS method that meets Wisconsin regulatory requirements (detection limits).
  - Potable Water – EPA Method 537.1
  - Aqueous (Non-Potable Water) – Draft EPA Method 1633
- As a result, approving alternative methods

[“Wisconsin PFAS Aqueous \(Non-Potable Water\) and Non-Aqueous Matrices Method Expectations”](#)

# Analytical Requirements

s. NR 205.07(1)(r)2., Wis. Adm. Code

- Isotope Dilution by LC/MS/MS can be utilized to analyze a more robust set of PFAS compounds (not just PFOS & PFOA)
  - WPDES permits only require PFOS & PFOA
  - Laboratories are not going to be required to report other compounds
  - Permittees are required to submit all results to the department

(s. NR 205.07(1)(r)2., Wis. Adm. Code)

# Analytical Requirements - Summary

- Must use one of 11 certified labs
- Isotope Dilution by LC/MS/MS
- All lab methods will be slightly different
- Permittees must submit all data to DNR (annual report per permit schedule section)

# CONNECT WITH US

Permit Implementation/Minimization Plans

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OFF THE RECORD"