



Department of Environmental Protection

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Required Laboratory Procedures for Testing PFAS for MassDEP Surface Water Discharge (SWD) Permits Wastewater Testing of Influent, Effluent, and/or Sludge

From: MassDEP Surface Water Discharge (SWD) Program

Last updated: May 26, 2023

The below information does not pertain to EPA NPDES Permits and MassDEP Surface Water Discharge (SWD) effective after April 1, 2023 that require PFAS testing according to Method 1633. Please contact MassDEP via massdep.npdes@mass.gov if you have questions about what test method is required in a facility's NPDES and SWD permit.

Analysis of per- and polyfluoroalkyl substances (PFAS) if required in a MassDEP Surface Water Discharge (SWD) Permit can only be performed by a laboratory approved by MassDEP to perform this analysis. Testing must be done in accordance with the SWD permit unless otherwise directed.

General Information

At a minimum PFAS testing includes the following compounds:

Compound		CAS #
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluorooctanesulfonic Acid	PFOS	1763-23-1

Laboratories' PFAS testing shall include analysis using appropriate analytical and quality control methods. Results received from testing using the approved methodologies shall be submitted to MassDEP for a quality assurance and quality control review and approval as soon as they are

received from the laboratory. Please submit results to eDEP, information available here:
<https://www.mass.gov/how-to/submit-wastewater-residuals-pfas-data-via-edep>.

A list of laboratories approved for testing PFAS in wastewater and sludge is maintained here:
<https://www.mass.gov/info-details/testing-of-pfas-in-wastewater-and-residuals>

In preparation for sampling, permittees may want to review the below PFAS sampling guidance documents:

From Michigan:

https://www.michigan.gov/documents/pfasresponse/General_PFAS_Sampling_Guidance_634597_7.pdf

From NEBRA:

https://static1.squarespace.com/static/54806478e4b0dc44e1698e88/t/5ca2599a002291000145dd88/1554143647366/NEBRA-PFAS_Sampling_Analysis_Guide_v.2-5Jan2018.pdf

If you have any questions regarding the PFAS monitoring requirements in your SWD permit, please contact the MassDEP staff person assigned to your permit or send an email to massdep.npdes@mass.gov

Laboratory Requirements for testing PFAS in Wastewater (influent, effluent, and sludge)

PFAS sample collection and testing must be performed according to the following guideline:

1. The Chain-of-Custody (COC) Form must include fields for the information below.
 - a. NPDES ID
 - b. Indicate “Influent”, “Effluent”, “Sludge”, or “Industry” (for SIU indirect dischargers) for each sample
 - c. For SIU industry samples, include the industry name(s) for each sample

Please ensure that the sample collection time is different from the relinquishment time, especially when directly delivering the samples to the laboratory. Sample collection and relinquishment times should be closer together when shipping samples to a laboratory.

2. A SWD facility may also submit a field duplicate, field reagent blank (FRB) or trip blank to meet MassDEP’s requirements for testing PFAS. Field duplicate samples are used to assess the precision of the sample collection process and to help determine the representativeness of the sample. Field duplicate results are used to evaluate the Relative Percent Difference (RPD) between the sample

result and the duplicate. A FRB is a reagent water sample that is transferred from one bottle to a clean bottle at a PFAS sampling site and is therefore exposed to the field environment. A FRB is used to determine if PFAS samples could have been contaminated in the field during the sampling process. A trip blank is reagent water sample in a sealed bottle that travels to the field and then back to the laboratory unopened with the field samples.

If you have any questions regarding PFAS testing requirements for a MassDEP Surface Water Discharge (SWD) Permit, please contact Jennifer Wood at Jennifer.wood@mass.gov.