

Wisconsin DNR PFAS Updates - effective March 1, 2021

Update to the Wisconsin DNR PFAS list

After careful consideration, the Wisconsin Department of Natural Resources (DNR) will no longer expect laboratories to report 10:2 FTS, PFHxDA or PFODA, as part of the WI DNR default PFAS list, at this time. This applies to new and existing projects, unless otherwise directed by the DNR. The DNR will continue to evaluate which PFAS are critical for reporting in Wisconsin as PFAS analysis and science continues to evolve. This decision was based on the exclusion of these compounds in the forthcoming EPA method. Therefore, the updated DNR PFAS list now consists of 33 PFAS and is provided on the third page of this document.

The remainder of this document clarifies the administrative rule requirements and general recommendations that the DNR has for the regulated community regarding PFAS sampling. Where guidance is provided, it is done so to assist the regulated community in submitting information to the DNR that it can use to make regulatory decisions with confidence.

Reporting PFAS results based on Wisconsin DHS recommended PFAS groundwater standards

The DNR expects laboratories to have PFAS method detection limits (MDLs) equal to or below the recommended groundwater enforcement standards (ES).

The DNR does not expect laboratories to have PFAS MDLs that are below the recommended groundwater preventative action limits (PAL) for all of the PFAS on the DNR PFAS list if the laboratory's routine method procedure does not generate MDLs below the PALs. Neutral PFAS are examples of PFAS for which laboratories may not have MDLs below the recommended PALs. The recommended groundwater ESs and PALs are provided for the updated DNR PFAS list on the third page of this document.

The DNR expects all sample results to be reported to the statistical MDL.

Certification requirements and expectations

The DNR's administrative rules require the analysis of drinking water samples submitted under s. NR 716.13 or s. NR 809.73 to be performed by a Wisconsin certified laboratory if one exists.

The DNR's administrative rules require the analysis of non-drinking water samples submitted under ss. NR 200.027 (except for those tests excluded in NR 219.037), NR 507.17, NR 664.0013 or NR 716.13 to be performed by a Wisconsin certified laboratory if one exists.

For samples that do not fall under ss. NR 200.027, NR 507.17, NR 664.0013, NR 716.13 or NR 809.73, the DNR recommends the analysis to be performed by a Wisconsin certified laboratory if one exists.

If a Wisconsin certified laboratory does not exist, the DNR recommends that the samples be performed by a laboratory that has applied for Wisconsin PFAS certification. The list of laboratories that have applied for Wisconsin PFAS certification can be found at <https://dnr.wisconsin.gov/topic/Contaminants/Labs.html>.

Analysis requirements and expectations

Laboratories perform PFAS analysis according to the instructions provided to them by their client. If the client does not provide instructions, the DNR expects drinking water and non-drinking water samples to be performed using the laboratory's isotope dilution method that utilizes the Wisconsin PFAS Aqueous (Non-Potable Water) and Non-Aqueous Matrices Method Expectations guidance document.

In addition, unless otherwise instructed by the client, the DNR expects drinking water and non-drinking water samples to be tested for the 33 compounds on the DNR PFAS list.

Non-drinking water matrices field quality control samples requirements

For non-drinking water matrices, laboratories are not responsible for sending out instructions or supplies for collecting field quality control samples unless requested by their client.

Responsible parties as defined in ch. NR 716 and owners and operators of solid waste disposal facilities regulated under chs. NR 500 to 538 are obligated to ensure that field quality control samples (e.g. field blanks, field duplicates, equipment blanks) are collected as required by the administrative code sections presented below. These parties and agents acting on their behalf shall inform laboratories of the field quality control samples that must be collected in order for the laboratory to provide the proper sampling supplies for collection.

Groundwater: s. NR 140.16 Monitoring and laboratory data requirements.

(1)

(a) All groundwater quality samples collected to determine compliance with ch. 160, Stats., shall comply with this section except as noted.

(b) *Groundwater sampling requirements.* All groundwater quality samples shall be collected and handled in accordance with procedures specified by the applicable regulatory agency or, where no sampling procedures are specified by that agency, in accordance with the sampling procedures referenced in par. (c). The sampling procedures specified by a regulatory agency may include requirements for field filtration.

(c) *Department groundwater sampling procedures.*

1. If sampling procedures are not specified by the applicable regulatory agency pursuant to par. (b), all groundwater quality samples shall be collected and handled in accordance with the sampling procedures contained in the following publications:

- a. Groundwater Sampling Desk Reference. Wisconsin Department of Natural Resources, PUBL-DG-037-96, September, 1996.
- b. Groundwater Sampling Field Manual. Wisconsin Department of Natural Resources, PUBL-DG-038-96, September, 1996.

Landfills: s. NR 507.16 Sampling plan. The owner or operator shall submit a sampling plan for all monitoring devices at the facility for approval as part of the feasibility report. The sampling plan shall be implemented as approved in writing by the department. The sampling plan shall follow procedures and methodologies specified by the department and shall comply with the requirements in s. NR 140.16.

Site Investigations: s. NR 716.13 Sampling and analysis requirements.

(6)

Responsible parties shall provide for the following quality control and quality assurance procedures, at a minimum, when collecting samples for laboratory analysis for a field investigation conducted under this chapter:

(a) Chain of custody shall be documented from the time of sample collection to the receipt of the sample by the analytical laboratory. Chain of custody documentation shall be in compliance with ch. NR 149, and shall be submitted to the department with the sample results.

(b) For soil samples, one temperature blank for every shipping container of samples that require cooling for preservation, unless samples are received by the laboratory on ice, unless another temperature is required by the analytical method used.

(c) For water samples:

1. One replicate sample for every 10 or less samples.
2. One equipment blank for every 10 or less samples, unless dedicated sampling equipment is used to prevent cross-contamination.
3. One trip blank for each shipping container that contained volatile samples.
4. One temperature blank for every shipping container of samples that require cooling for preservation, unless samples are shipped on ice.

(d) Decontamination of all sampling instruments between each sampling event, unless dedicated or disposable sampling devices are used in a manner that prevents cross contamination or other unintended contamination of samples.

(10)

Responsible parties shall ensure that groundwater samples are collected and handled according to the procedures specified in s. NR 140.16 (1), unless the department approves the use of an alternative procedure.

Any questions contact Tom Trainor at tom.trainor@wisconsin.gov or 920.412.5970.

Disclaimer: This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

WISCONSIN DNR PFAS LIST - 1.1.21

#	Acronym (EPA)	Name [# carbons] (<i>trade name</i>)	CAS #	ES (ng/L) *	PAL (ng/L) *	Acronyms (other)
Carboxylic Acids						
1	PFBA	Perfluorobutanoic acid [C4] (<i>FC 23, Fluorad FC 23</i>)	375-22-4	10,000	2,000	HFBA
2	PFPeA	Perfluoropentanoic acid [C5]	2706-90-3			
3	PFHxA	Perfluorohexanoic acid [C6]	307-24-4	150,000	30,000	
4	PFHpA	Perfluoroheptanoic acid [C7]	375-85-9			
5	PFOA	Perfluorooctanoic acid [C8]	335-67-1	20 °	2 °	8PF
6	PFNA	Perfluorononanoic acid [C9]	375-95-1	30	3	
7	PFDA	Perfluorodecanoic acid [C10]	335-76-2	300	60	Ndfda, PFDeA
8	PFUnA	Perfluoroundecanoic acid [C11]	2058-94-8	3,000	600	PFUdA, PFUnDA
9	PFDoA	Perfluorododecanoic acid [C12]	307-55-1	500	100	PFDoDA, PFDOA, PFDDA
10	PFTrDA	Perfluorotridecanoic acid [C13]	72629-94-8			PFTriA, PFTrA
11	PFTA	Perfluorotetradecanoic acid [C14]	376-06-7	10,000	2,000	PFTeDA, PFTDA, PFTeA, PFTetA, PFTreA
Sulfonic Acids						
12	PFBS	Perfluorobutanesulfonic acid [C4] (<i>FC-98</i>)	375-73-5	450,000	90,000	PFBuS
13	PFPeS	Perfluoropentanesulfonic acid [C5]	2706-91-4			
14	PFHxS	Perfluorohexanesulfonic acid [C6]	355-46-4	40	4	PFHS
15	PFHpS	Perfluoroheptanesulfonic acid [C7]	375-92-8			
16	PFOS	Perfluorooctanesulfonic acid [C8] (<i>FC 95, Fluorad FC 95</i>)	1763-23-1	20 °	2 °	nPFOS, P8S
17	PFNS	Perfluorononanesulfonic acid [C9]	68259-12-1			
18	PFDS	Perfluorodecanesulfonic acid [C10]	335-77-3			
19	PFDoS	Perfluorododecanesulfonic acid [C12]	79780-39-5			PFDoDS, PFDOS
20	4:2 FTS	4:2 fluorotelomersulfonic acid [C6]	757124-72-4			4:2 FTSA, 4:2 FtS, FtS 4:2
21	6:2 FTS	6:2 fluorotelomersulfonic acid [C8]	27619-97-2			6:2 FTSA, 6:2 FtS, FtS 6:2, 6:2 PFOS, THPFOS
22	8:2 FTS	8:2 fluorotelomersulfonic acid [C10]	39108-34-4			8:2 FTSA, 8:2 FtS, FtS 8:2, 8:2 PFOS
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols						
23	PFOSA	Perfluorooctanesulfonamide [C8]	754-91-6	20 °	2 °	FOSA, pfosa
24	NMeFOSA	N-Methylperfluorooctanesulfonamide [C9] (<i>Fluorad FX 12</i>)	31506-32-8			MeFOSA, N-MeFOSA, N-Me-FOSA
25	NEtFOSA	N-Ethylperfluorooctanesulfonamide [C10] (<i>Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano</i>)	4151-50-2	20 °	2 °	EtFOSA, N-EtFOSA
26	NMeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid [C11]	2355-31-9			MeFOSAA, N-MeFOSAA, NMe-PFOSA-AcOH
27	NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	2991-50-6	20 °	2 °	EtFOSAA, N-EtFOSAA, NEt-PFOSA-AcOH
28	NMeFOSE	N-Methylperfluorooctanesulfonamidoethanol [C11]	24448-09-7			MeFOSE, N-MeFOSE, MeFOSE Alcohol
29	NEtFOSE	N-Ethylperfluorooctanesulfonamidoethanol [C12] (<i>FC-10, Fluorad FC 10</i>)	1691-99-2	20 °	2 °	EtFOSE, N-EtFOSE, N-Et-FOSE
Replacement Chemicals						
30	HFPO-DA	Hexafluoropropylene oxide dimer acid [C6] (<i>FRD-903, GenX</i>)	13252-13-6	300	30	PFPrOPrA
31	DONA	4,8-dioxa-3H-perfluorononanoic acid [C7]	919005-14-4	3,000	600	ADONA (sodium salt of DONA)
32	9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	756426-58-1			F-53B Major, C8 Cl-PFESA
33	11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid [C10]	763051-92-9			F-53B Minor, C10 Cl-PFESA
		No recommended standard yet from cycle 11				

c = DHS recommends a combined ES of 20 ng/L and a combined PAL of 2 ng/L for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

* The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Department of Health Services to the Department of Natural Resources. The Department of Natural Resources is in the rule making process to include these values into ch. NR 140. The standards presented in this table are not required on January 1, 2021 as the rule making process has not been completed yet.