CNIC Installation Website

PFAS Results Reporting and Notification Template

What are per- and polyfluoroalkyl substances and where do they come from?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industrial and consumer products around the globe, including in the U.S., for decades. Due to their widespread use and environmental persistence, most people in the United States have been exposed to certain PFAS. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous filmforming foam or AFFF) used for fighting petroleum fires.

Is there a federal or Guam regulation for PFAS in drinking water?

There is currently no federal drinking water standard for any PFAS compounds. In May 2016, the U.S. Environmental Protection Agency (EPA) established a lifetime drinking water health advisory (HA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both chemicals are types of PFAS.

In Guam, there is not a PFAS drinking water regulation.

The Department of Defense (DoD) issued a policy in 2023 to monitor drinking water for PFAS at all DoD owned and operated water systems at a minimum of every two years. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA HA level of 70 ppt, water systems would 1) take immediate action to reduce exposure to PFOS or PFOA by providing alternative drinking water; and 2) evaluate and implement corrective actions to reduce levels below 70 ppt, or determine if the system should be permanently removed from use.

The Department of Defense (DoD) issued a policy in 2023 to monitor drinking water for PFAS at all DoD owned and operated water systems at a minimum of every two years. This policy states that where State regulations for PFAS are more stringent than the guidance provided in the memorandum, the more stringent regulations apply. That is, if water sampling results confirm levels of PFAS compounds (including PFOS or PFOA) in drinking water above the State standard, water systems would 1) take immediate action to reduce exposure to PFOS or PFOA by providing alternative drinking water; and 2) evaluate and implement corrective actions to reduce levels below 70 ppt, or determine if the system should be permanently removed from use.

What about the EPA's 2022 interim Health Advisories or proposed regulations?

EPA issued interim Health Advisories for PFOS and PFOA in 2022. However, these newer levels are below quantifiable limits (i.e., below detection levels). In March 2023, EPA announced a proposed National Primary Drinking Water Regulation (NPDWR) for six PFAS including PFOA, PFOS, PFNA, HFPO-DA (GenX Chemicals), PFHxS, and PFBS. The EPA anticipates finalizing the regulation after the public comment period in 2023 and water systems will have three years to comply with the new regulation.

In anticipation of this EPA drinking water regulation and to account for emerging science that shows potential health effects of PFOS and PFOA at levels lower than 70 ppt, DoD continues to evaluate its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard, such as reviewing our current data and collecting additional sampling where necessary. DoD remains committed to communicating and engaging with our communities throughout this process.

Has U.S. Naval Base Guam and the Navy Water System on Guam tested its water for PFAS?

Yes. U.S. Naval Base Guam and the Navy Water System on Guam has previously tested for PFAS initially in 2020 and found two sites of concern at the Naval Hospital compound; specifically wells NRMC-1 and NRMC-2. Since August 2020, these two wells have been taken off-line and disconnected from the drinking water system and are awaiting the installation of new treatment systems to address the PFAS levels. Water was re-routed from the Navy Water Treatment Plant, fed by the Fena Reservoir and two natural springs, to the Naval Hospital area. Sampling has continued at the two Naval Hospital wells as part of an ongoing investigation. Additionally, comprehensive sampling was conducted in September 2023 of the entire Navy Water System on Guam that includes all sources of water from production wells, Almagosa and Bona springs, and Fena Reservoir. These results are provided in the below Table: NBG PFAS FY23 Baseline Summary (Sept 18, 2023). Sampling will continue until results are below the Minimum Reporting Level (MRL) for two consecutive sampling events and then every two years thereafter as long as the results remain below both the proposed MRL for all 29¹ PFAS compounds.

PFAS Detected but PFOA/PFOS were below the 2016 EPA HA

We are informing you that PFOA and PFOS were detected but below the 2016 EPA HA. Other PFAS compounds covered by the sampling method were detected above the minimum reporting limit (MRL) but EPA does not have a HA for these compounds at this time. The results are provided in Table: NBG PFAS FY23 Baseline Summary (Sept 18, 2023) of Navy Water System on Guam. PFOA and PFOS were below the 2016 EPA HA of 70 parts per trillion, however, we will continue to monitor the drinking water semi-annually. In accordance with DoD policy, U.S. Naval Base Guam and the Navy Water System on Guam will collect semi-annual samples for PFAS until results are below the MRL for two consecutive sampling events and then every two years thereafter as long as the results remain below the MRL and the 2016 EPA HA.

Enclosure (1)

¹ Total number of analytes must be validated against your sample results.

FY23 Baseline				NBG	NBG	USMC Camp Blaz	USMC Camp Blaz	USMC Camp Blaz	USMC Camp Blaz	NBG, off-line	NBG off-line
				FENA Reservoir	1150	Colvic camp Blaz	Contro camp Blaz	Colvic Camp Blaz	Contro camp Blaz	1150, 011	1150, 011
				PFAS Clearwell	PFAS NCS-8	PFAS NCS-9A	PFAS NCS-B1	PFAS NCS-10	PFAS Combined Wells*	PFAS NRMC-1	PEΔS NRMC-2
Analyte	CASRN	UCMR5 MRL	Units	9/18/2023	9/18/2023	9/18/2023	9/18/2023	9/18/2023	9/18/2023	9/18/2023	9/18/2023
Perfluorobutanoic acid (PFBA)	375-22-4	5	ng/L	<5	<5	<5	<5	<5			 <5
Perfluoropentanoic acid (PFPeA)	2706-90-3	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluorohexanoic acid (PFHxA)	307-24-4	3	ng/L	<3	<3	<3	<3	<3	<3	<3	6.7
Perfluoroheptanoic acid (PFHpA)	375-85-9	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluorooctanoic acid (PFOA)	335-67-1	4	ng/L	<4	<4	<4	<4	<4	<4	<4	<4
Perfluorononanoic acid (PFNA)	375-95-1	4	ng/L	<4	<4	<4	<4	<4	<4	<4	<4
Perfluorodecanoic acid (PFDA)	335-76-2	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluoroundecanoic acid (PFUnA)	2058-94-8	2	ng/L	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorododecanoic acid (PFDoA)	307-55-1	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluorobutanesulfonic acid (PFBS)	375-73-5	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluoropentanesulfonic acid (PFPeS)	2706-91-4	4	ng/L	<4	<4	<4	<4	<4	<4	<4	12
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	3	ng/L	<3	<3	<3	<3	3.1	<3	<3	11
Perfluoroheptanesulfonic acid (PFHpS)	375-92-8	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	4	ng/L	5.3	<4	<4	<4	<4	<4	44	56
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	757124-72-4	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	27619-97-2	5	ng/L	<5	<5	<5	<5	<5	<5	<5	<5
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	39108-34-4	5	ng/L	<5	<5	<5	<5	<5	<5	<5	<5
Hexafluoropropylene oxide dimer acid (HFPOA-DA)	13252-13-6	5	ng/L	<5	<5	<5	<5	<5	<5	<5	<5
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	3	ng/L	<3	<3	<3	<3	<3	<3	<3	<3
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	113507-82-7	3	ng/L	<3	<3	<3	<3	<3	<3	<3	5.4
Perfluoro-3-methoxypropanoic acid (PFMPA)	377-73-1	4	ng/L	<4	<4	<4	<4	<4	<4	<4	<4
Perfluoro-4-methoxybutanoic acid (PFMBA)	863090-89-5	3	ng/L	<3	<3	_	<3	<3			<3
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	151772-58-6	20	ng/L	<20	<20	<20	<20	<20	<20	<20	<20
9CI-PF3ONS	756426-58-1	2	ng/L	<2	<2	<2	<2	<2	<2	<2	<2
11Cl-PF3OUdS	763051-92-9	5	ng/L	<5	<5	<5	<5	<5	<5	<5	<5
Perfluorotridecanoic Acid (PFTriA)	72629-94-8	7	ng/L	<7	<7	<7	<7	<7	<7	<7	<7
Perfluorotetradecanoic acid (PFTeA)	376-06-7	8	ng/L	<8	<8	<8	<8	<8	<8	<8	<8
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	2355-31-9	6	ng/L	<6	<6	<6	<6	<6		_	<6
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	2991-50-6	5	ng/L	<5	<5	<5	<5	<5	<5	<5	<5

Notes:

PFOS+PFOA 70ppt or Higher (Y/N)

NCS Wells 6, 7, 11, 12 combined in a central treatment facilty with a single EPTDS.

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Well NRMC-1 and Well NRMC-2 are off-line since August 2020 and are put on-line only during sampling through a by-pass (no flushing).

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