



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

11/5/21

SUSTAINMENT

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS,
ENERGY AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE NAVY (ENERGY,
INSTALLATIONS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE AIR FORCE
(INSTALLATIONS, ENVIRONMENT AND ENERGY)
DIRECTOR, NATIONAL GUARD BUREAU (JOINT STAFF, J8)
DIRECTOR, DEFENSE LOGISTICS AGENCY (INSTALLATION
MANAGEMENT)

SUBJECT: Agricultural Operations Notifications and Reporting Requirement

The Department of Defense (DoD) is taking action to reduce risk to human health and the environment from per- and polyfluoroalkyl substances (PFAS) exposure. Additionally, DoD is working with regulatory agencies, communities, and other stakeholders to ensure open and transparent information sharing. In furtherance of these objectives, this memorandum provides clarifying guidance for continued implementation of Section 335 of the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2021 and policy for additional agricultural operations notifications.

Follow-up Actions for Agricultural Operations Notifications Pursuant to Section 335 of the FY 2021 NDAA.

Updated Information. To meet the requirements of Section 335(a) of the FY 2021 NDAA, the DoD Components notified agricultural operations located within one mile down gradient of military installations or National Guard facilities where “covered” PFAS, as described below, (1) was detected in groundwater on base; (2) has been hydrologically linked to a local agricultural or drinking water source; and (3) was known or suspected to be the result of a PFAS release at a military installation or National Guard facility located in the United States. The DoD Components will provide these agricultural operations any pertinent updated information, defined as new data that exceed initial notification results for covered PFAS, within 15 days of receiving validated results, pursuant to Section 335(c) of the FY 2021 NDAA. The DoD Components may use the template letter and corresponding enclosures provided in Attachment 1 to notify the agricultural operations as required.

Annual Reporting Requirement. Section 335(d) of the FY 2021 NDAA requires DoD to submit an annual report to Congress on the status of notifying agricultural operations that met the requirements of Section 335(a). To fulfill this reporting requirement, each DoD Component will provide the information requested by March 31, 2022, and annually thereafter. This data will include information regarding notifications sent pursuant to Section 335(a) between April 1, 2021, and March 30, 2022 (and updated annually thereafter).

DoD Policy for Additional Agricultural Operations Notifications.

New Notifications. To ensure consistency across the Department, I am establishing policy requiring notifications to agricultural operations the same as those required by Section 335(a), but based on groundwater sampling performed after the NDAA for FY 2021 was enacted. Once validated data of a “covered” PFAS release is available, military installations or National Guard facilities will provide notifications to agricultural operations that did not initially meet the FY 2021 NDAA requirements if they now meet the Section 335(a) requirements of being located within one mile down gradient of the military installation or National Guard facility after detecting covered PFAS in groundwater on base. The on base groundwater must be hydrologically linked to a local agricultural or drinking water source and the covered PFAS detected in the groundwater must be known or suspected to be the result of a PFAS release at a military installation or National Guard facility located in the United States. The DoD Components may use the template letter and corresponding enclosures provided in Attachment 2 to notify the agricultural operations as required by this policy.

Covered PFAS. “Covered PFAS” was defined in the FY 2021 NDAA as perfluorooctane sulfonate (PFOS) that has been detected in groundwater above 70 parts per trillion (ppt), individually or in combination with perfluorooctanoic acid (PFOA); and/or PFOA that has been detected in groundwater above 70 ppt, individually or in combination with PFOS; and/or perfluorobutanesulfonic acid (PFBS) that has been detected in groundwater above 40 parts per billion (ppb).

The point of contact for this matter is Ms. Alexandria Long, Office of the Deputy Assistant Secretary of Defense for Environment and Energy Resilience, at 703-571-9061 or alexandria.d.long.civ@mail.mil.

MORANI.STEVE
N.J.1174632444

Digitally signed by
MORANI,STEVEN J.1174632444
Date: 2021.11.05 10:58:45 -04'00'

Steven J. Morani
Principal Deputy Assistant Secretary of Defense
for Sustainment (Logistics)
Acting Assistant Secretary of Defense for
Sustainment

Attachments:
As stated

Attachment 1: Agricultural Operations Notification Template Letter

Agricultural Operations Notifications and Reporting Requirement
Follow-up Actions Pursuant to Section 335 of the FY2021 NDAA:
Agricultural Operations Notification Template Letter
[Date]

Attachment 1

[Agricultural Operation Owner/Operator]
[Agricultural Operation Owner/Operator Address Line 1]
[Agricultural Operation Owner/Operator Address Line 2]

Dear [Agricultural Operation Owner/Operator],

I am contacting you again in accordance with the requirements of Section 335 of the 2021 National Defense Authorization Act provided in Enclosure 1. This is a follow up to the original notice of testing results we provided to you on [Date]. Your agricultural operation is located within one mile down gradient of [Military Installation or National Guard Facility]. I obtained your name and address from the U.S. Department of Agriculture as part of our consultation with them in providing this notice.

The [DoD Component] has continued to sample groundwater at [Military Installation or National Guard Facility] where [Military Installation or National Guard Facility] activities may have released per- and polyfluoroalkyl substances (PFAS) and we are sharing this pertinent information with you. Enclosure 2 shows the new pertinent information along with the data we initially reported to you. Relevant governmental information regarding the health and safety of the covered PFAS detected is found in Enclosure 3.

[DoD Component or My staff] will work with you, [State Regulatory Agency and if applicable add EPA Region] to share information on our ongoing efforts to ensure the protection of human health and the environment. If you have any questions or concerns about this matter, please contact [Military Installation/National Guard Facility POC] at [phone] or by email at [email].

Sincerely,

[POC], [Military Installation/National
Guard Facility]

Enclosures:
as stated

SEC. 335. NOTIFICATION TO AGRICULTURAL OPERATIONS LOCATED IN AREAS
EXPOSED TO DEPARTMENT OF DEFENSE PFAS USE.

(a) NOTIFICATION REQUIRED.—Not later than 60 days after the date of the enactment of this Act, the Secretary of Defense, in consultation with the Secretary of Agriculture, shall provide a notification described in subsection (b) to any agricultural operation located within one mile down gradient of a military installation or National Guard facility where covered PFAS—

- (1) has been detected in groundwater;
- (2) has been hydrologically linked to a local agricultural or drinking water source, including a water well; and
- (3) is suspected to be, or known to be, the result of the use of PFAS at an installation of the Department of Defense located in the United States or State-owned facility of the National Guard.

(b) NOTIFICATION REQUIREMENTS.—The notification required under subsection (a) shall include the following information:

- (1) The name of the Department of Defense installation or National Guard facility from which the covered PFAS in groundwater originated.
- (2) The specific covered PFAS detected in groundwater.
- (3) The levels of the covered PFAS detected.
- (4) Relevant governmental information regarding the health and safety of the covered PFAS detected, including relevant Federal or State standards for PFAS in groundwater, livestock, food commodities and drinking water, and any known restrictions for sale of agricultural products that have been irrigated or watered with water containing PFAS.

(c) ADDITIONAL TESTING RESULTS.—The Secretary of Defense shall provide to an agricultural operation that receives a notice under subsection (a) any pertinent updated information, including any results of new elevated testing, by not later than 15 days after receiving validated test results.

(d) REPORT TO CONGRESS.—Not later than 90 days after the date of the enactment of this Act, and annually thereafter, the Secretary of Defense shall submit to the Committee on Agriculture, Nutrition, and Forestry of the Senate and the Committee on Agriculture of the House of Representatives a report on the status of providing notice under subsection (a). Such report shall include, for the period covered by the report—

- (1) the approximate locations of such operations relative to installations of the Department of Defense located in the United States and State-owned facilities of the National Guard;
- (2) the covered PFAS detected in groundwater; and
- (3) the levels of covered PFAS detected.

(e) DEFINITIONS.—In this section:

(1) The term “covered PFAS” means each of the following:

(A) Perfluorooctanoic acid (commonly referred to as “PFOA”) (Chemical Abstracts Service No. 335–67–1) detected in groundwater above 70 parts per trillion, individually or in combination with PFOS.

(B) Perfluorooctane sulfonic acid (commonly referred to as “PFOS”) (Chemical Abstracts Service No. 1763–23– 1) detected in groundwater above 70 parts per trillion, individually or in combination with PFOA.

(C) Perfluorobutanesulfonic acid (commonly referred to as “PFBS”) (Chemical Abstracts Service No. 375–73– 5) detected in groundwater above 40 parts per billion.

(2) The term “PFAS” means a perfluoroalkyl or polyfluoroalkyl substance with at least one fully fluorinated carbon atom, including the chemical GenX.

Agricultural Operations Notifications and Reporting Requirement
Military Installation/National Guard Facility
 Groundwater Detection Sampling Range

Attachment 1
 Enclosure 2

	PFOS	PFOA	PFBS
Notification Level	70 ppt	70 ppt	40 ppb
Range Detected	[if > 70ppt]	[if > 70 ppt]	[if > 40 ppb]

PFAS = per- and polyfluoroalkyl substances

PFBS = perfluorobutanesulfonic acid

PFOA = perfluorooctanoic acid

PFOS = perfluorooctane sulfonate

ppb = parts per billion

ppt = parts per trillion

Relevant Federal Information

The following references include relevant governmental information regarding the health and safety of the covered per- and polyfluoroalkyl substances (PFAS) (i.e., PFOS, PFOA, PFBS) detected.

- U.S. Environmental Protection Agency Interim Recommendations to Address Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctanesulfonate, Office of Land and Emergency Management Directive No. 9283.1-47 (December 19, 2019)
- U.S. Environmental Protection Agency: epa.gov/PFAS
- Agency for Toxic Substances and Disease Registry: <https://www.atsdr.cdc.gov/pfas/index.html>
- Food and Drug Administration: <https://www.fda.gov/food/chemicals/and-polyfluoroalkyl-substances-pfas>
- DoD PFAS website: defense.gov/PFAS
- [DoD Component] PFAS website: [DoD Component] PFAS website]

Relevant State Standard [*Installation says “At this time, there are no established state standards for the covered PFAS (i.e., PFOS, PFOA, or PFBS) in groundwater, livestock, food commodities, and drinking water or known restrictions for the sale of agricultural products that have been irrigated or watered with water containing PFAS” OR includes the pertinent State standard from the table below.*]

State	Citation	Relevant PFAS Standard
Alaska groundwater (as drinking water) human health cleanup level	18 Alaska Admin. Code 75.345(b) Table C	PFOS: 400 ppt PFOA: 400 ppt
Maine Interim Drinking Water Standard	Senate Paper 64 - Legislative Document 129 (S.P. 64 - L.D. 129)	PFOA, PFOS, PFHpA, PFNA, PFDA, and PFHxS: 20 ppt (combined)
Massachusetts MCLs	310 Code of Massachusetts Regulations (CMR) 22.07G: Drinking Water	PFOA, PFOS, PFHxS, PFNA, PFHpA, and PFDA: 20 ppt (combined)
Michigan MCLs	Michigan Administrative Code 325.1005, Supplying Water to the Public	PFOS: 16 ppt PFOA: 8 ppt PFBS: 420 ppt
Michigan cleanup (drinking water) criteria	MI Rule 299, Table 1	Drinking Water: PFOS: 16 ppt PFOA: 8 ppt PFBS: 420 ppt Groundwater Surface Water Interface (GSI): PFOA: 12000 ppt PFOS: 12 ppt

State	Citation	Relevant PFAS Standard
Michigan Toxic Substances	Rule 323.1057, Water Quality Values	PFOS: 11 ppt PFOA: 420 ppt
Minnesota health risk limits for groundwater (used as drinking water)	MN Admin Rules, Part 4717.7860	PFOA: 35 ppt PFOS: 300 ppt PFBS: 7000 ppt
Montana Numeric Water Quality Standards	Montana Department of Environmental Quality (MDEQ) Circular DEQ-7	PFOA and PFOS: 70 ppt (combined)
New Hampshire MCLs	N.H. Code Admin. R. Env-Dw 705.06	PFOA: 12 ppt PFOS: 15 ppt
New Hampshire groundwater (suitable for drinking water) contaminated site management rule	NH Code of Admin. Rules, Chapter Env-Or 603.03, Table 600-1	PFOS: 15 ppt PFOA: 12 ppt
New Jersey MCLs	N.J.A.C. 7:10-5	PFOS: 13 ppt PFOA: 14 ppt PFNA: 13ppt
New Mexico		May need to reference State restrictions on sale of milk and cattle for dairy near Cannon AFB
New York MCLs	Subpart 5-1 of Title 10 of the Official Compilation of Codes, Rules and Regulations of the State of New York	PFOA: 10 ppt PFOS: 10 ppt
North Carolina groundwater (used for drinking water) classification rule	NC Admin. Code 02L.0202	PFOA: 2,000 ppt
Rhode Island Groundwater Quality Standards and Preventive Action Limits	250-RICR-150-05-3	PFOA: 70 ppt PFOS: 70 ppt
Texas Protective Concentration Limits (PCLs)	30 TAC §350	PFOA: 290 ppt PFOS: 560 ppt PFBS: 34,000 ppt
Vermont Hazardous Waste Management Regulations	VT DEC Chapter 7	PFOS and PFOA: 20 ppt (separately and combined)
Vermont groundwater protection (as high quality drinking water) rule	VT DEC Chapter 12, Appendix 1	PFOS and PFOA: 20 ppt (combined)
Vermont MCLs	VT DEC Chapter 21, Table 6-1	PFHxS, PFHpA, PFNA, PFOS, and PFOA: 20 ppt (combined)

- PFBS = perfluorobutanesulfonic acid

- PFDA = perfluorodecanoic acid
- PFHpA = perfluoroheptanoic acid
- PFHxS = perfluorohexane sulfonic acid
- PFNA = perfluorononanoic acid
- PFOA = perfluorooctanoic acid
- PFOS = perfluorooctane sulfonate
- ppt = parts per trillion

Attachment 2: Additional Agricultural Operations Notification Letter Template

[Date]

[Agricultural Operation Owner/Operator]

[Agricultural Operation Owner/Operator Address Line 1]

[Agricultural Operation Owner/Operator Address Line 2]

Dear [Agricultural Operation Owner/Operator],

I am contacting you because the [DoD Component] sampled groundwater at [Military Installation or National Guard Facility] where [Military Installation or National Guard Facility] activities may have released per- and polyfluoroalkyl substances (PFAS). Our sampling detected [perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and/or perfluorobutanesulfonic acid (PFBS)] above DoD notification levels which can be found in Enclosure 1. Your agricultural operation is located within one mile downgradient of [Military Installation or National Guard Facility]. I obtained your name and address from the U.S. Department of Agriculture as part of our consultation with them in providing this notice.

[DoD Component] is committed to addressing [PFOS/PFOA/PFBS] and follows the federal cleanup law, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), for all chemicals in our cleanup program. [DoD Component] follows the CERCLA process to fully investigate a potential release of these chemicals and determine the appropriate cleanup actions based on risk. [DoD Component] is first addressing sites that pose the greatest potential risk to human health. The [Military Installation or National Guard Facility] will coordinate its investigation with the appropriate state regulators and provide opportunities for public participation. [Military Installation or National Guard Facility] will also incorporate any relevant federal or state standards into the cleanup process as final cleanup standards as required by federal law. We encourage you to visit [Military Installation or National Guard Facility website, Administrative Record location, Restoration Advisory Board contact, and/or number to call] to learn more about the ongoing cleanup actions at [Military Installation or National Guard Facility]. [Military Installation or National Guard Facility] will seek your approval prior to conducting response activities on your property, including an investigation, if determined necessary.

[PFOS, PFOA, and/or PFBS are/is] part of a larger class of man-made chemicals known as per- and polyfluoroalkyl substances (PFAS). Scientists are still studying the health effects of exposure to PFAS and they are the subject of increasing regulation worldwide. At this time, there are no established federal standards for PFAS in groundwater, livestock, food commodities, and drinking water, or known federal restrictions for the sale of agricultural products that have been irrigated or watered with water containing PFAS. Relevant governmental information regarding the health and safety of the covered PFAS detected, PFAS is found in Enclosure 2.

[DoD Component or My staff] will work with you, [State Regulatory Agency and if applicable add EPA Region] to share information on our ongoing efforts to ensure the protection of human health and the environment. If you have any questions or concerns about this matter, please contact [Military Installation/National Guard Facility POC] at [phone] or by email at [email].

Sincerely,

*[POC], [Military Installation/National
Guard Facility]*

Enclosures:
as stated

Agricultural Operations Notifications and Reporting Requirement
 [Military Installation/National Guard Facility]
 Groundwater Detection Sampling Range

Attachment 2
 Enclosure 1

	PFOS	PFOA	PFBS
Notification Level	70 ppt	70 ppt	40 ppb
Range Detected	[if > 70ppt]	[if > 70 ppt]	[if > 40 ppb]

PFAS = per- and polyfluoroalkyl substances

PFBS = perfluorobutanesulfonic acid

PFOA = perfluorooctanoic acid

PFOS = perfluorooctane sulfonate

ppb = parts per billion

ppt = parts per trillion

Relevant Federal Information

The following references include relevant governmental information regarding the health and safety of the covered per- and polyfluoroalkyl substances (PFAS) (i.e., PFOS, PFOA, PFBS) detected.

- U.S. Environmental Protection Agency Interim Recommendations to Address Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctanesulfonate, Office of Land and Emergency Management Directive No. 9283.1-47 (December 19, 2019)
- U.S. Environmental Protection Agency: epa.gov/PFAS
- Agency for Toxic Substances and Disease Registry: <https://www.atsdr.cdc.gov/pfas/index.html>
- Food and Drug Administration: <https://www.fda.gov/food/chemicals/and-polyfluoroalkyl-substances-pfas>
- DoD PFAS website: defense.gov/PFAS
- [DoD Component] PFAS website: [DoD Component] PFAS website]

Relevant State Standard [*Installation says “At this time, there are no established state standards for the covered PFAS (i.e., PFOS, PFOA, or PFBS) in groundwater, livestock, food commodities, and drinking water or known restrictions for the sale of agricultural products that have been irrigated or watered with water containing PFAS” OR includes the pertinent State standard from the table below.*]

State	Citation	Relevant PFAS Standard
Alaska groundwater (as drinking water) human health cleanup level	18 Alaska Admin. Code 75.345(b) Table C	PFOS: 400 ppt PFOA: 400 ppt
Maine Interim Drinking Water Standard	Senate Paper 64 - Legislative Document 129 (S.P. 64 - L.D. 129)	PFOA, PFOS, PFHpA, PFNA, PFDA, and PFHxS: 20 ppt (combined)
Massachusetts MCLs	310 Code of Massachusetts Regulations (CMR) 22.07G: Drinking Water	PFOA, PFOS, PFHxS, PFNA, PFHpA, and PFDA: 20 ppt (combined)
Michigan MCLs	Michigan Administrative Code 325.1005, Supplying Water to the Public	PFOS: 16 ppt PFOA: 8 ppt PFBS: 420 ppt
Michigan cleanup (drinking water) criteria	MI Rule 299, Table 1	Drinking Water: PFOS: 16 ppt PFOA: 8 ppt PFBS: 420 ppt Groundwater Surface Water Interface (GSI): PFOA: 12000 ppt PFOS: 12 ppt

State	Citation	Relevant PFAS Standard
Michigan Toxic Substances	Rule 323.1057, Water Quality Values	PFOS: 11 ppt PFOA: 420 ppt
Minnesota health risk limits for groundwater (used as drinking water)	MN Admin Rules, Part 4717.7860	PFOA: 35 ppt PFOS: 300 ppt PFBS: 7000 ppt
Montana Numeric Water Quality Standards	Montana Department of Environmental Quality (MDEQ) Circular DEQ-7	PFOA and PFOS: 70 ppt (combined)
New Hampshire MCLs	N.H. Code Admin. R. Env-Dw 705.06	PFOA: 12 ppt PFOS: 15 ppt
New Hampshire groundwater (suitable for drinking water) contaminated site management rule	NH Code of Admin. Rules, Chapter Env-Or 603.03, Table 600-1	PFOS: 15 ppt PFOA: 12 ppt
New Jersey MCLs	N.J.A.C. 7:10-5	PFOS: 13 ppt PFOA: 14 ppt PFNA: 13ppt
New Mexico		May need to reference State restrictions on sale of milk and cattle for dairy near Cannon AFB
New York MCLs	Subpart 5-1 of Title 10 of the Official Compilation of Codes, Rules and Regulations of the State of New York	PFOA: 10 ppt PFOS: 10 ppt
North Carolina groundwater (used for drinking water) classification rule	NC Admin. Code 02L.0202	PFOA: 2,000 ppt
Rhode Island Groundwater Quality Standards and Preventive Action Limits	250-RICR-150-05-3	PFOA: 70 ppt PFOS: 70 ppt
Texas Protective Concentration Limits (PCLs)	30 TAC §350	PFOA: 290 ppt PFOS: 560 ppt PFBS: 34,000 ppt
Vermont Hazardous Waste Management Regulations	VT DEC Chapter 7	PFOS and PFOA: 20 ppt (separately and combined)
Vermont groundwater protection (as high quality drinking water) rule	VT DEC Chapter 12, Appendix 1	PFOS and PFOA: 20 ppt (combined)
Vermont MCLs	VT DEC Chapter 21, Table 6-1	PFHxS, PFHpA, PFNA, PFOS, and PFOA: 20 ppt (combined)

- PFBS = perfluorobutanesulfonic acid

- PFDA = perfluorodecanoic acid
- PFHpA = perfluoroheptanoic acid
- PFHxS = perfluorohexane sulfonic acid
- PFNA = perfluorononanoic acid
- PFOA = perfluorooctanoic acid
- PFOS = perfluorooctane sulfonate
- ppt = parts per trillion