



FACT SHEET

Per- and Polyfluoroalkyl Substances (PFAS)



Remedial Investigation at Bismarck Army Aviation Support Facility (AASF) #1 Bismarck, ND

The Army National Guard's (ARNG) #1 priority is to ensure the health and well-being of our Soldiers, their families, and our communities. The ARNG is conducting environmental investigations for certain per- and polyfluoroalkyl substances, commonly known as PFAS, at our facilities throughout the nation. PFAS refers to a large class of manmade chemicals that are used in many household and industrial products, including a specialized firefighting foam, known as aqueous film forming foam (AFFF). PFAS were detected in the soil and groundwater sampled at the Bismarck AASF #1 (located on the Bismarck Municipal Airport). ARNG is working with the North Dakota Department of Environmental Quality (ND DEQ) to address PFAS at the facility.

What are PFAS?

- PFAS refers to thousands of man-made chemicals used in commerce including, but not limited to, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA); two of the most extensively studied chemicals and, historically, the most widely used throughout the U.S.
- Beginning in the 1950s, common uses of these substances included numerous heat-, stain-, grease- and water-resistant products, such as carpets, clothing, upholstery fabrics, paper packaging for food, and non-stick cookware.
- In the 1970s, military and civilian firefighters began using and training with PFAS-containing AFFF, the quickest extinguishing agent to protect people and property during petroleum-based fires such as aircraft crashes.
- These chemicals may enter the environment through landfills and wastewater due to their presence in consumer products, or as runoff to soil and water from other uses.
- PFAS do not break down easily and persist in our environment. Some chemicals stay in the human body for long periods of time after eating food or drinking water containing PFAS. Scientists are actively researching PFAS, and our understanding of these substances is changing rapidly.

What is the PFAS Investigation Process?

- The Department of Defense (DoD) follows the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (also known as "Superfund"), as well as long-standing USEPA regulations to evaluate chemical release sites in its cleanup program, including PFAS. ARNG follows the CERCLA process to fully investigate releases, prioritize responses, and determine appropriate cleanup actions based on risk.
- The CERCLA process includes the following phases: Preliminary Assessment, Site Inspection, Remedial Investigation, Feasibility Study, Remedial Action (including Design, Construction, and Operations), and Long-Term Management. Each of these phases can take several years to complete. The first three phases at Bismarck AASF #1 are described below.
- **Preliminary Assessment (PA):** Completed in 2020, the Bismarck AASF #1 PA is an initial review and analysis of readily available information to determine if a release may have occurred that required additional investigation or action.
- **Site Inspection (SI):** Completed in 2023, the SI involves sampling the site groundwater and/or soil to determine if a release may have occurred, and, if so, what additional action, if any, is appropriate.

CONTACTS

Army National Guard G-9
(703) 607-1277
armyguardcleanup@army.mil

North Dakota Army National Guard
NDGuard@army.mil
<https://www.ndguard.nd.gov/contact>

North Dakota Department of
Environmental Quality
(701) 328-5210
DEQ@nd.gov

- **Remedial Investigation (RI):** The RI, which is currently underway at Bismarck AASF #1, characterizes the nature and extent (how much, how far, how deep) of the contamination that was identified during the SI. An assessment of site-specific risks to human health and the environment is also performed. This phase can take several years to complete and determines the appropriate cleanup actions for a site.
- Throughout the process, the ARNG collaborates with regulatory agencies, communities, and facilities to ensure open and transparent information sharing.
- Public interest in establishing a Restoration Advisory Board (RAB) will be solicited during the RI, giving local community members the opportunity to have their voices heard and to provide valuable community insight.
- One site, or Area of Interest (AOI), located near the northwestern portion of the Facility where PFAS-containing materials were released, was identified at Bismarck AASF #1, AOI 1 Main Hangar. Two additional AOIs (AOI 2 Fuel Point and AOI 3 Fuel Truck Parking) were identified after the SI fieldwork, and will be investigated during the RI.



- More information is available at: <https://www.nationalguard.mil/Environmental/PFAS/>

Groundwater and Soil Testing Results for PFAS at Bismarck AASF #1, ND

Highest Detection (nanograms per liter [ng/L] groundwater, micrograms per kilogram [µg/kg] soil)	CERCLA Phase	Status
Groundwater: PFOS: 2,500; PFOA: 20; PFBS: 55; PFNA: 0.52; PFHxS: 370	Site Inspection	Sampling at Bismarck AASF #1 revealed PFAS is present in soil and groundwater above USEPA Regional Screening Levels (RSLs). The DoD is following the CERCLA process to investigate the PFAS releases on the Facility and determined an RI is required. The RI began in 2023.
Soil: PFOS: 26; PFOA: 0.38; PFHxS: 1.1		
PFBS = perfluorobutanesulfonic acid	PFHxS = perfluorohexanesulfonic acid	PFNA = perfluorononanoic acid

Army National Guard Next Steps:

The ARNG continues to ensure the health and well-being of our Soldiers, their families, and our communities by identifying and addressing PFAS, nationwide. ARNG has completed the PA and SI phases at this site. The RI phase will be completed to characterize the nature and extent of PFAS contamination and assess risk to human health and the environment.

Additional Information is Available at These Websites:

- <https://www.nationalguard.mil/Environmental/PFAS/>
- <https://www.denix.osd.mil/army-pfas/home/>
- <https://deq.nd.gov/MF/PFAS/>

