FREQUENTLY ASKED QUESTIONS
PFAS – PFOA

Q: What are Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA)?

A: PFOS and PFOA are synthetic fluorinated organic chemicals used in many industrial and consumer products, such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized foam, including Aqueous Film Forming Foam (AFFF). AFFF is highly effective for controlling petroleum-based fires, and is used by the military services, commercial aviation industry.

Q: Why is PFOS/PFOA being discovered on closed and active military installations, like the 115 Fighter?

A: Since the 1970s, the Air Force used Aqueous Film Forming Foam – a firefighting foam containing PFOS/PFOA – at crash sites, in fire training areas and some maintenance hangars at active, Reserve, Air National Guard installations. In the U.S., the Air Force is systematically testing for potential PFOS/PFOA concentrations in soil, surface water and groundwater where AFFF may have been released.

Q: Is it true the Air Force has known for decades that PFCs are dangerous to humans?

A: The Air Force depends on the EPA and the Department of Health and Human Services Agency for Toxic Substances and Disease Registry to determine potential danger to human health and the environment. In 1999, the EPA began investigating PFOS and did the same for PFOA in 2000. It wasn't until 2009 however, that EPA accumulated sufficient information to issue its first provisional drinking water health advisory. Between 2009 and 2016, the Air Force issued initial policy to address sampling and response actions for PFOS and PFOA, conducted Preliminary Assessments at nearly all our installations and began providing alternative drinking water at certain sites that tested above the EPA's Health Advisory. The EPA issued its Health advisory in 2016 at the current level and the Air Force has adjusted its response to meet that new level.

Q: How is the Air Force addressing PFOS/PFOA on closed and active installations?

A: The Air Force's investigation work and mitigation actions are guided by the Comprehensive Environmental Response, Compensations and Liability Act, or CERCLA, applicable state laws and the EPA's drinking water health advisory of 70 parts per trillion.

The Air Force is using a comprehensive approach – identify, respond, prevent – to address the potential for PFOS/PFOA presence in drinking water, and respond appropriately. When drinking water sample results indicate PFOS/PFOA concentrations exceed 70 PPT, and there is evidence the Air Force is likely a primary source, the Air Force determines an appropriate mitigation action, such as providing an alternate drinking water source, filtration system, and/or providing bottled water, if needed. When PFOS/PFOS are detectable, but below the HA level in drinking water, the Air Force may conduct well monitoring as needed to track level changes and determine if further action is needed.

Q: What is the Air Force's comprehensive approach to PFOS/PFOA?

A: The Air Force is focused on three lines of effort to address PFOS/PFOA in drinking water supplies:

- **Identify**: The Air Force is conducting sampling and analysis of drinking water systems enterprise-wide. Additionally, in the U.S., the Air Force is identifying potential AFFF release sites; conducting site inspections to confirm releases; and using groundwater, surface water, soil and sediment sampling to map potential plume migration pathways.
- **Respond**: Where PFOS/PFOA levels exceed the EPA's health advisory levels in drinking water supplies, and there is indication the Air Force is likely a primary source, the Air Force will immediately provide alternate drinking water sources if needed. If necessary, the Air Force will then identify and initiate a long-term solution to provide drinking water that does not exceed the HA, which may include alternate water supply sources or filtration systems.
- **Prevent**: The Air Force replaced legacy AFFF in emergency response vehicles with more environmentally responsible AFFF, and will replace AFFF in all hangar fire prevention systems. Additionally, the Air Force is evaluating approaches to reduce the risk of inadvertent discharges and ensure containment of both the legacy and replacement foam.

Q: I live near an installation; why won't the Air Force sample my well?

A: Air Force sampling actions are data driven. They use data and site information to map PFAS/PFOA migration and potential pathways to drinking water so we can continue to protect human health by focusing sampling efforts in the location potentially impacted. The Air Force evaluates site-specific factors to assess if there is a potential for PFOS/PFOA to reach drinking water supplies.

Q: Can I cook, bathe and brush my teeth with water tested above HA?

A: The EPA health advisory is specific to the human consumption of water. According to the EPA, water is safe for activities that do not include consumption, such as bathing, doing laundry and washing dishes. For more information, contact the EPA or your local and state health department.

Q: What is AFFF?

A: Aqueous Film Forming Foam, or AFFF, is a firefighting agent used commercially and by the Department of Defense, including the Air Force. Most commonly used to combat petroleum fires in aircraft accidents, hangars and during live-fire training exercises, this formulation of AFFF contains perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) – to perfluorinated compounds that persist in the environment and are not known to degrade by any natural process. The EPA has classified these compounds as emerging contaminants due to inconclusive health risks and evolving regulatory standards.

Q: Why didn't the Air Force immediately stop using AFFF after the health concerns regarding PFOS/PFOA came to light?

A: It was not until November 2015 that there was a more environmentally responsible option available on the DOD's qualified products list for firefighting agents. With the identification of this effective substitute, the Air Force has replaced its entire inventory of legacy AFFF to this more responsible and environmentally safer version.

Q: Why is the Air Force focusing its efforts on temporary solutions? Why not just start cleanup and fix the root of the problem?

A: PFOS/PFOA is an emerging contaminant; regulations are few and evolving. Protecting human health is an Air Force priority and we are aggressively responding to potential drinking water risks when there is evidence the Air Force is likely a primary source. Additionally, the Air Force is moving forward in accordance with the CERCLA process to identify, define and mitigate any potential issues. The CERCLA process is federal law; makes certain thorough investigation work is done, and promotes accountability, community involvement and long-term protectiveness.