



U.S. AIR FORCE ACADEMY

USAFA SPECIFIC PFOS/PFOA FAQ

PFOS/PFOA FAQ

QUESTION: When were the chemicals detected?

ANSWER: Air Force officials released the results August 22, 2019 of a Site Inspection that occurred in 2018 and early 2019 at the U.S. Air Force Academy. Official results showed Perfluorooctane sulfonate (PFOS) and Perfluorooctanoic acid (PFOA) levels above the Environmental Protection Agency's Lifetime Health Advisory level of 70 part per trillion in ground water samples stemming from past firefighting activities.

Q: At what levels?

A: In four wells initially tested on the U.S. Air Force Academy installation, the Site Inspection found concentrations that range from 86 ppt. to 72,000 ppt. The EPA has established a Lifetime Health Advisory for PFOS and PFOA at 70 ppt. As a result, the Air Force will conduct an Expanded Site Inspection in the coming months to assess potential risk to private drinking water wells south of the Academy installation, primarily in the Woodmen Valley area.

Q: When was AFFF used at USAFA?

A: PFOS-based AFFF was used from the early 1970s to approximately 2005. For context, from the early 90s to around 2010, USAFA personnel went to Peterson to accomplish the annual Air Force Aircraft Rescue and Fire Fighting Response (ARFF) training requirement. Around 2010, The Academy procured a Mobile Aircraft Fire Trainer (MAFT) and restarted ARFF training locally around 2010. However, the MAFT trainer does not require Aqueous Film Forming Foam that contains PFOS and PFOA. We do that training with water at the U.S. Air Force Academy.

Q: Why was it being used?

PFOS-based AFFF was available at USAFA for use in fighting petroleum-based fires. AFFF was used at the Academy for firefighting activities, to include training and equipment checks.

Q: Do fire crews still use it? If not, when did they stop?

A: USAFA fire crews no longer use PFOS-based AFFF. USAFA stopped using it for training in the early 90s, when Peterson AFB became the Regional Air Rescue Fire Fighting Training Center. However, we were still required to conduct vehicle and equipment checks so that small amounts would have been discharged during those checks until we stopped doing those checks in approximately 2005. We have since replaced the PFOS-based AFFF with a more environmentally responsible foam at all USAFA locations, and no longer allow uncontrolled AFFF discharges for system testing and training. In the event of a discharge, we respond as if it were a hazardous material spill.

Q: And what alternative to AFFF are they using?

A: We have replaced the PFOS-based AFFF with a formula that contains shorter chain molecules. Data reviewed by the EPA in 2009 suggests these shorter-chain formulas are less toxic because the chemicals are cleared from the body faster and are not considered bio-accumulative or bio-persistent. The new formula meets both military specifications for firefighting and the goals of the EPA's 2010/15 PFOA Stewardship Program.

Q: To what extent is USAFA prepared to protect Colorado Springs, given that the base is upgrade from the city and the fact that Monument Creek surface water and groundwater flows through the city?

A: The Air Force's priority is protecting human health and drinking water sources. If the Air Force identifies drinking water supplies with PFOS/PFOA at levels above the EPA Lifetime Health Advisory, and where the Air Force is a likely contributor, we will implement response actions to provide alternate drinking water. This may include supplying affected household with bottled drinking water, connecting a home to a municipal drinking water supply, or installing a treatment/filtration system on private wells.

Next steps: The Air Force will conduct an Expanded Site Inspection in the coming months to assess potential risk to private drinking water wells south of the Academy, primarily in the Woodmen Valley area. Testing is scheduled to begin in October at six additional locations on the south side of the Academy installation. In addition, Air Force officials will begin going door-to-door in the Woodman Valley area Sept. 4-9, 2019 in a phased approach to determine if private drinking water wells off the Academy installation have been affected. The Air Force's priority is protecting human health and drinking water sources. If the Air Force identifies drinking water supplies with PFOS/PFOA at levels above the EPA LHA, and where the Air Force is a likely contributor, we will implement response actions to provide alternate drinking water. This may include supplying affected household with bottled drinking water, connecting a home to a municipal drinking water supply, or installing a treatment/filtration system on private wells.

Q: What bottled water is being delivered at present?

A: The Air Force's priority is protecting human health and drinking water sources. If the Air Force identifies drinking water supplies with PFOS/PFOA at levels above the EPA LHA, and where the Air Force is a likely contributor, we will implement response actions to provide alternate drinking water. This may include supplying affected household with bottled drinking water, connecting a home to a municipal drinking water supply, or installing a treatment/filtration system on private wells.

Q: What has been the Colorado Department of Public Health and Environment's role so far as the USAFA site?

From an Air Force perspective, CDPHE has been involved as a regulatory authority in approving all work at USAFA, from identifying source areas, analyzing results of sampling at those source areas and determining an accelerated timeline for further work to protect public health.

Q: How deep will the Air Force wells be when they are drilling in October in the community south of the base?

A; All drill testing will be done on the south side of the Air Force Academy installation at varying depths. No well drilling will occur off the installation.

Q: How deep were the wells where AFFF chemicals were detected?

A: Wells on installation were screened at 6 to 53 feet below ground surface.

Q: Is the fire training area still in use and, if so, what steps are being taken to protect personnel from elevated levels of Perfluorinated compounds in soil there?

A: We haven't used any type of AFFF in the fire training area since the approximately 1990 when we completely stopped using that area for fuel-based aircraft fire training. We still had the AFFF available on the flight line areas after we started using Fire Station 3, when we replaced the legacy AFFF with the new version in approximately 2017. We also limited the use of AFFF near Station 3 by not conducting tests on the vehicles so the volume was also limited in that area.

HELPFUL INFORMATION

1. The Air Force has notified regulators and community that the Air Force Civil Engineer Center has completed an initial site inspection to determine if PFOS/PFOA is present on the U.S. Air Force Academy installation and if there is a possibility the compounds could be present in human drinking water supplies. The Air Force action is focused on drinking water, consistent with the EPA's lifetime health advisory for human drinking water, and in keeping with the federal CERCLA process. The Air Force provided information to Colorado's Congressional delegation, local media and has posted the site inspection report on the Air Force Environmental Administrative Record.

Regarding the blood testing for firefighters, we refer you to OSD.

On claims, people should contact their local JA.

For more information people can visit

<https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>
<https://www.colorado.gov/pacific/cdphe/pfcs>
<https://search.epa.gov/epasearch/?querytext=PFOS&areaname=&areacontacts=&are>

2. **What's next:** The Air Force will investigate for the presence of PFOS and PFOA in an Expanded Site Inspection which will include the sampling of groundwater at the U.S. Air Force Academy and after requesting to sample, in private drinking water wells adjacent to the U.S. Air Force Academy. The Air Force Civil Engineer Center intends to conduct a door-to-door survey and sample multiple wells to determine which are for human drinking water purposes and if any are above the EPA's 70 parts per trillion Lifetime Health Advisory (LHA). Our focus is on ensuring no one is drinking water above the EPA's LHA. In the event any human drinking water sources believed impacted by AF activity are found above the LHA, the Air Force will take immediate measures to provide bottled water or other alternative sources until more permanent solutions can be installed.

[NOTE: Starting in Woodman Valley]

Timeline: Our first priority is protecting drinking water sources because drinking water is the most immediate pathway to human consumption. The time it takes to clean up an environmental restoration site depends on many factors, including the risk it poses to human health and the environment, the volume and location of the contamination, and the cleanup solution that is

selected.

Additionally, we must follow multi-step CERCLA processes that are clearly laid out in regulations and law. We work with many community, state and federal partners that involves identification, investigation and clean up.

Also, regarding Air Force future actions, please see

<https://www.afcec.af.mil/News/Article-Display/Article/1498001/air-force-working-toward-innovative-groundwater-cleanup-solution/>

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