Assessing Potential Perfluorinated Compounds (PFCs) Contamination at Air Force Installations

As of 16 March 2016

Statement for Release

In response to the Environmental Protection Agency's provisional health advisory for two forms of perfluorinated compounds (PFOS/PFOA), the Air Force has been working to identify all sites on installations where those PFCs may have been released as part of a firefighting effort or training scenario. PFCs are a component of aqueous film forming foam, a firefighting foam that has been used by the Air Force and other DoD components to protect people and property from fuel-based fires.

As part of a comprehensive assessment process, the Air Force determined PFC-containing firefighting foam may have been released at approximately 200 installations (active, Reserve, Air National Guard and closed). The Air Force Civil Engineer Center is sampling at each installation to confirm whether a release has occurred and if PFCs are present in the ground water. As the Air Force conducts sampling, we consider several factors such as depth to groundwater, possibility for the contaminant to move offsite and possible pathways for the contaminant to reach drinking water sources. If we identify a drinking water source that could be contaminated, we test it. If the test confirms levels above the EPA's PHA, we take immediate action to ensure people have water to drink that is not above the PHA level and begin action to address the contamination sources. All sites with a suspected PFC release will be sampled.

To date 30 bases have been tested and four have drinking water sources with PFC levels above the EPA PHA level. In those cases, the Air Force immediately responded to protect the people's drinking water with some combination of bottled water, filtration or alternate water sources. We then began work to identify and implement a long-term solution to protect human health and the environment.

To prevent releases of firefighting foam in the future, the Air Force limits use of the foam to emergency responses only, and in those situations immediate action is taken to ensure containment. The Air Force is committed to eliminating firefighting foam containing either PFOS or PFOA from its inventory, and is finalizing a phased plan to replace existing firefighting foam inventories with recently approved PFOS/PFOA-free alternatives that still provide adequate fire protection for critical assets and infrastructure. These alternatives do contain PFCs but do not contain the two addressed by the EPA advisory.

The Air Force mission is to fly, fight and win to protect the nation. When missions have an adverse impact on communities, our priority is to restore health and safety. The Air Force has a proven track record of resolving contamination issues at active and closed bases.

Comprehensive Approach to Assessing Potential PFC Contamination

Focused on three lines of effort to address perfluorinated compound contamination of drinking water supplies:

- **Identify** where known or suspected releases may have occurred
- **Respond** where releases have occurred
- **Prevent** future releases from happening

Identify

- Identify where PFCs have been used – training, crash, other sites
- DoD identified 664 fire training sites of which 421 are Air Force
    - · Air Force assessing ~ 200 bases (82 active, 79 ANG, 40 BRAC); approx. 1700 sites total
- Investigate sites
    - · Sample ground and surface water, soil, & sediment
- If PFCs present and pathway exists to drinking water sources
    - · Test water – public systems & private wells – for PFC levels
        - 30 bases tested to date
        - Four bases exceeded EPA's provisional health advisory (PHA) level: Pease AFB, NH; Plattsburgh AFB, NY; Horsham ANGB, PA; Eielson AFB, AK

Respond

- Where PFC levels exceed PHA, act immediately
    - · Use alternate public source or provide bottled water
    - · Identify and initiate long-term fix (Carbon filtration system, plume migration control, land use control, etc.)
- Where levels don't exceed PHA, monitor
    - · Funded Agency for Toxic Substances and Disease Registry to evaluate health assessment/monitoring needs

Prevent

- Engage with environmental regulators on long-term groundwater clean-up
- Discontinued use of Aqueous Film Forming Foam (AFFF) for training
- Disposing of AFFF stockpiles containing perfluorooctane sulfonate (PFOS) in FY16
- New DoD MILSPEC firefighting foam approved in 2015
    - · Contains PFCs but not long-chain PFCs (e.g., PFOS) associated with PHA
- Initiated program to replace fire-fighting foam in firefighting vehicles
    - · Total requirement $25M
- Evaluating best approaches address risk in hanger systems
    - · Reducing risk of inadvertent discharge/ensuring containment

Planned Sampling Schedule

Base (Location)	Field Work Start Date
Dover Air Force Base	Dec-2015
Moody Air Force Base	Apr-2016
Joint Base Langley Eustis - Langley	Apr-2016
Joint Base San Antonio - Lackland	May-2016
Joint Base Elmendorf-Richardson	May-2016
Joint Base Langley Eustis - Eustis	May-2016
Tinker Air Force Base	Jul-2016
Eielson Air Force Base	Jul-2016
Joint Base McGuire-Dix-Lakehurst	Aug-2016
Clear AFS	Aug-2016
Air National Guard Alpena	Aug-2016
Air National Guard Volk Field	Aug-2016
Creech Air Force Base	Sep-2016
Travis Air Force Base	Sep-2016
Nellis Air Force Base	Sep-2016
Joint Base Andrews	Sep-2016
Kirtland Air Force Base	Oct-2016
Ellsworth Air Force Base	Oct-2016
Malmstrom Air Force Base	Oct-2016
Wright-Patterson Air Force Base	Oct-2016
Beale Air Force Base	Dec-2016
Air Force Plant 85	Dec-2016
Edwards Air Force Base	Jan-2017
Grissom Air Reserve Base	Jan-2017
Joint Base Charleston	Jan-2017
Shaw Air Force Base	Jan-2017
Seymour Johnson Air Force Base	Jan-2017
Homestead Air Reserve Base	Feb-2017
Avon Park Air Force Range	Feb-2017
Tyndall Air Force Base	Mar-2017
Robins Air Force Base	Mar-2017
Peterson Air Force Base	May-2017
Air Force Plant PJKS	May-2017
Buckley Air Force Base	May-2017
FE Warren Air Force Base	Jun-2017
Hill Air Force Base	Jun-2017
Air National Guard Utah/Salt Lake	Jul-2017
Air National Guard Burlington	Aug-2017
Minot Air Force Base	Aug-2017
Air Force Research Laboratory - Rome	Aug-2017
Niagara Falls Air Reserve Station	Aug-2017
Grand Forks Air Force Base	Sep-2017
Hanscom Air Force Base	Sep-2017
Westover Air Force Base	Sep-2017
McConnell Air Force Base	Sep-2017

Whiteman Air Force Base	Oct-2017
Offutt Air Force Base	Oct-2017
Air Force Plant 6	Nov-2017
Dobbins Air Reserve Base	Nov-2017
Scott Air Force Base	Nov-2017

**Remaining installations will be tested in FY17 and FY18.

For More Information

The Air Force Civil Engineer Center is executing the assessment and sampling for PFCs. Please contact AFCEC Public Affairs at 1-866-725-7617 or afcec.pa@us.af.mil for more information on the Air Force response to emerging contaminants.

More information can also be found at
http://www.afcec.af.mil/environment/perfluorinatedcompounds/index.asp