

Air Force PFOS/PFOA Snapshot

Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are synthetic fluorinated organic chemicals that were used in many industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized foam.

Commonly grouped with other synthetic fluorinated chemicals using the umbrella term Perfluorinated Compounds – or PFCs – PFOS and PFOA are the only two compounds of this group with established Environmental Protection Agency health advisories for drinking water.

Significant Information

- In 1970, the Air Force began using the firefighting agent Aqueous Film Forming Foam, or AFFF, which contained both PFOS and PFOA.
- AFFF is the most efficient extinguishing method for petroleum-based fires and is widely used across the firefighting industry, to include all commercial airports, to protect people and property.
- On May 19, 2016, the Environmental Protection Agency established a lifetime health advisory (LHA) level of 70 parts per trillion for PFOS and/or PFOA in drinking water. The health advisory is non-regulatory and not enforceable; however, under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) the Air Force uses it to determine an acceptable level of PFOS/PFOA in drinking water.

IDENTIFY



39 BRAC
89 Active Duty/Reserve
75 Air National Guard

99%
Preliminary Assessment
Reports Complete

190 Installations

Expected to Require Further Site Inspection

RESPOND



Ongoing Air Force Drinking Water Mitigation:

- Bottled water
- Whole-house filtration
- Municipal water supply hookup
- Alternate water supplies

\$241M

PFOS/PFOA Actions to date
investigations | mitigations

BRAC

K.I. Sawyer
March
Pease
Plattsburgh
Wurtsmith
Reese

ACTIVE/RESERVE

Dover
Eielson
Ellsworth
Fairchild
JB McGuire-Dix-Lakehurst
Mountain Home
New Boston
Peterson
Wright-Patterson

ANG

Horsham
Toledo
Gabreski
JB Cape Cod

PREVENT

176/176

Installations transitioned to new C6 AFFF in stockpiles and fire trucks

\$5.3M

Cost for ecologic system kits for fire vehicles

76%

Installations finished retrofitting vehicles with ecologic system kits



979,000

Gallons of legacy AFFF incinerated

\$10.8M

Cost to date to replace and incinerate legacy AFFF in stockpiles and fire trucks

Installations Status Update

On-base Drinking Water Mitigation

1. Mountain Home AFB, ID

Two on-base drinking water wells above LHA; one filtration system installed; bottled water provided for second well

Off-base Drinking Water Mitigation

4. Dover AFB, DE

One off-base residential well above LHA; filtration system provided

5. Ellsworth AFB, SD

One off-base residential well above LHA; connected to base water supply

6. Fairchild AFB, WA

Two municipal wells above LHA; wells taken offline. 79 off-base residential wells above LHA; bottled water provided

7. Former K.I. Sawyer AFB, MI

One residential well above LHA; filtration system provided

8. Former March ARB, CA

One municipal well above LHA; shut off, cooperative agreement in place. Two residential wells above LHA; provided alternate drinking water

9. Former Pease AFB, NH

One public well above LHA; shut off, cooperative agreements in place. 5 residential wells above LHA, filtration systems installed at 4 residences, 1 residence provided bottled water

10. Former Plattsburgh AFB, NY

Four residential wells above LHA; 3 filtration systems provided, 1 residence provided bottled water

2. New Boston AFS, NH

One on-base drinking water well above LHA; filtration system installed

3. Wright-Patterson AFB, OH

Two wells above LHA, filtration system installed

11. Former Wurtsmith AFB, MI

One residential well above LHA; connected to municipal water supply

12. Gabreski ANGB, NY

County wells above LHA; 1 residential well above LHA; ANG providing bottled water from the city to the residence

13. JB Cape Cod, MA

One municipal well above LHA; taken offline. 6 residential wells above LHA; 6 receiving bottled water. 9 filtration systems installed, 103 municipal water connections completed

14. Peterson AFB, CO

42 municipal wells above LHA; wells taken offline, 8 back on line with treatment systems. 28 off-base locations provided bottled water; 37 private wells above LHA; 26 residences provided filtration systems; 1 location connected to municipal water supply

15. Toledo ANG, OH

One off-base residential well above LHA; ANG providing bottled water. Cooperative agreement with county in place; County is contracting to have residence connected to municipal water

16. Former Reese AFB, TX

189 private wells and 3 public wells above LHA and/or Texas Commission on Environmental Quality Tier 1 Residential Protective Concentration Limits; 98 filtration systems installed, remaining provided bottled water

Both On-base and Off-base Drinking Water Mitigation

17. Horsham ANG, PA

Under Administrative Order. Two on-base drinking water wells above LHA; temporary carbon filtration installed and bottled water provided. 59 off-base private wells and 5 municipal wells above LHA. Currently providing alternate water sources to surrounding townships while carbon filtration systems are constructed

18. Eielson AFB, AK

Six-vessel GAC system installed at on-base water treatment plant. 170 off-base wells above LHA; 164 filtration systems installed, remaining residences provided bottled water

19. JB McGuire-Dix-Lakehurst, NJ

Two on-base backup wells above LHA; wells taken offline. 5 off-base wells above LHA; 3 filtration systems installed, 2 properties provided bottled water. Installing connection to municipal water lines as permanent solution

Other Drinking Water and Non-drinking Water Mitigation

Barnes ANGB, MA: Two municipal wells above LHA; wells taken offline. Three private wells above LHA for which state is providing alternate water source

Burlington ANG, VT: Non-drinking water (agricultural) water leachate at off-site private well above LHA; state installed carbon filtration treatment

Former Chanute AFB, IL: Non-drinking water: leachate above LHA, treated for discharge to wastewater treatment plant

Joe Foss Field, SD: 10 public wells above LHA; alternate water supply provided by other public wells

Martinsburg ANG, WV: One municipal well above LHA taken offline

Former March AFB, CA: Non-drinking water: effluent above LHA from former Fire Training Area (FTA) pump and treat system, treated prior to re-injection

Former Mather AFB, CA: Non-drinking water: effluent above LHA from pump and treat system treated prior to re-injection

New Castle ANG, DE: 14 public wells above LHA. Municipality installed carbon filtration systems on 10 wells. Installation of filtration systems in progress at 2 wells; further testing underway at 2 additional wells

Stewart ANG, NY: City of Newburgh drinking water reservoir above LHA; alternate water provided through New York State aqueduct. State-funded public drinking water system for Newburgh construction is complete but not operating

Harrisburg IAP, PA: Municipal supplier delivered water with elevated PFOS in 2014; the supplier mitigated the problem and conducted periodic monitoring. The current wells utilized and drinking water are currently below the LHA

Former Pease AFB, NH: Non-drinking water: effluent above LHA from former FTA pump and treat system, treated prior to re-injection

Former Wurtsmith AFB, MI: Non-drinking water: effluent above LHA from former FTA pump and treat system, installed new system to treat prior to discharge. Effluent above LHA from 2 existing pump and treat systems, constructed new system to treat prior to discharge