

Air Force Response to per- and polyfluorooalkyl Substances (PFAS)

Former Reese AFB, TX Fact Sheet

August 2018

Background: What are PFAS?

PFAS are synthetic fluorinated organic compounds used in many industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized firefighting foam.

In 1970, the Air Force began using Aqueous Film Forming Foam (AFFF), which contains PFAS. AFFF is the most efficient extinguishing method for petroleum-based fires and is widely used across the firefighting industry to protect people and property.

Air Force and Regulatory Actions

The United States Environmental Protection Agency (USEPA) classified two of the PFAS, perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), as emerging contaminants. These are chemicals and materials that: (a) have pathways to enter the environment; (b) present potential unacceptable human health or environmental risks; and (c) either do not have promulgated standards based on peer-reviewed science, or the promulgated regulatory standards are evolving due to new science, detection capabilities, or pathways.

- In 2010, The Air Force Civil Engineer Center began a comprehensive assessment process to determine whether AFFF may have been released on active, Reserve, Air National Guard and closed installations.
- In 2014, the Texas Commission on Environmental Quality (TCEQ) published requirements for 16 PFAS, including PFOS and PFOA, under the Texas Risk Reduction Program (TRRP) regulations.
- On May 19, 2016, the USEPA established Lifetime Health Advisory (HA) levels of 70 parts per trillion for PFOS and PFOA in drinking water.

PFAS at the former Reese AFB

The Air Force is working closely with USEPA Region 6 and TCEQ to identify locations at the former Reese Air Force Base where PFAS may have been released and initiate any required mitigation actions.

Preliminary Assessment

- A review of historic records to identify fire training areas, crash sites and other areas at the installation where AFFF was used, stored, handled or released was completed in January 2016.

Site Inspection

- Site inspections have been conducted at all identified sites on the former base to investigate potential AFFF release areas. The inspection includes sampling groundwater, surface water, soil and sediment to verify where releases occurred. During the initial phase of the investigation, we determined through laboratory testing that PFAS are present in groundwater at the former Reese AFB.

Mitigation of drinking water contamination

- When PFOS/PFOA levels in drinking water well samples exceed the EPA's HA levels, the Air Force promptly provides an alternate drinking water source, like bottled water, until a permanent solution is in place. Permanent solutions may include installation of a filtration system or connection of impacted wells to a public drinking water supply at the Air Force's expense.
- In late November 2017, the Air Force began sampling private wells and community water system wells within one mile downgradient from former Reese AFB. To date, more than 450 drinking water wells have been sampled. One-hundred-eighty-five (185) private wells and three public wells serving 320 households exceed the USEPA HA levels for PFOS, PFOA, (or sum of PFOS and PFOA), and/or additional PFAS for which the TCEQ has published protective concentration levels (PCLs). Seventy-seven (77) individual treatment systems consisting of granular activated carbon and resin, also known as GAC systems, have been installed in households which exceed either the USEPA HAs and/or TCEQ PCLs. Additional GAC systems are being installed weekly. Results have been shared with owners, TCEQ, and USEPA.
- For those wells with water samples showing levels below USEPA HA and/or TCEQ PCLs, the Air Force may conduct additional periodic sampling to track changes in the levels and determine if further action is necessary.
- Other actions: The Air Force will follow applicable requirements to further investigate identified PFAS.

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