Snapshot

Former Reese AFB PFAS Investigation

Current as of 29 Jan 2024

What are PFAS?

Per- and polyfluoroalkyl substances are a group of synthetic, fluorinated organic compounds used in many industrial and consumer products. In 1970, the Department of the Air Force began using aqueous film forming foam, which contains PFAS, to extinguish petroleum fires to save people and protect property.

Air Force Response to PFAS

The DAF is taking aggressive measures at the former Reese Air Force Base, Texas, and Air Force-wide, to ensure communities have safe drinking water. The DAF is using a comprehensive approach — identify, respond, prevent — to assess potential risks to drinking water and take action to protect human health. The DAF is committed to working with the Texas Commission on Environmental Quality, or TCEQ, and community leaders to protect human health on and around former Reese AFB. The DAF complies with the Resource Conservation and Recovery Act, or RCRA, permit issued by TCEQ for all environmental restoration requirements at Reese. While drinking water is being cleaned up at individual wells, the DAF has completed a comprehensive action to delineate the nature and extent of the contamination in all affected media. This information will be used to inform future response actions, as required.

Reese PFAS Investigation

In 2014, the DAF began assessing potential PFAS contamination stemming from historical AFFF use at the former base. Under the Comprehensive Environmental Response, Compensation and Liability Act process, the Air Force conducted a Preliminary Assessment and Site Inspection. SI fieldwork confirmed contamination exceeded TCEQ protective concentration levels, or PCLs. The DAF will complete remaining environmental cleanup activities in compliance with the RCRA permit.

Affected Property Assessment

The Affected Property Assessment investigation (rough equivalent of a CERCLA RI) as required by the RCRA permit was initiated in September 2019. The Final Affected Property Assessment Report, or APAR, dated November 2023, was approved by the TCEQ on Jan. 11, 2024. The APAR documents the extent of contaminated in affected media, evaluated the risk to human health and ecological receptors, and identifies areas where response actions are required.

Response Actions

An Interim Corrective Measure consisting of a groundwater pump and treatment system, or PTS, is in the design phase. System startup is projected for Dec. 2025. DAF anticipates completion of a Response Action Plan in 2026 which will recommend the final remedies for soil and groundwater.

PFAS compounds with PCLs	GW (ppt)
Perfluorooctanesulfonic acid (PFOS)	560
Perfluorooctanoic acid (PFOA)	290
Perfluorononanoic acid (PFNA)	290
Perfluorohexanesulfonic acid (PFHxS)	93
Perfluoroheptanoic acid (PFHpA)	560
Perfluorobutanesulfonic acid (PFBS)	34,000
Perfluorodecanoic acid (PFDA)	370
Perfluorododecanoic acid (PFDoA)	290
Perfluorohexanoic acid (PFHxA)	12,000
Perfluorotetradecanoic acid (PFTeA)	290
Perfluorotridecanoic acid (PFTrDA)	290
Perfluoroundecanoic acid (PFUnA)	290
Perfluorobutanoic acid (PFBA)	24,000
Perfluorodecanesulfonic acid (PFDS)	290
Perfluorooctane sulfonamide (PFOSA)	290
Perfluoropentanoic Acid (PFPeA)	12,000

Protective Concentration Levels, PCLs

Per the RCRA permit, the DAF adheres to the Texas Risk Reduction Program. Under the TRRP, TCEQ has published PCLs for 16 PFAS, including PFOS and PFOA, in soil, surface water and groundwater.

Air Force Installation & Mission Support Center

Preliminary Assessment — Oct. 2014 - Jan. 2016

Site Inspection — Mar. 2017 - Oct. 2018

Affected Property Assessment — Oct. 2019 - Jan. 2024

Interim Corrective Measure Design began — Sept. 2023- Present

IDENTIFY

- PA/SI identified GW impacts above HA/ TCEQ PCLs at **10** areas and soil impacts at **8** areas.
- November 2017: based on SI sampling, began sampling DW sources within the study area.
- April 2018: DAF implemented quarterly DW monitoring schedule.

RESPOND

- Providing alternative DW to all residences where, in accordance with DoD policy, PFOS, PFOA, or the sum of both are above 70ppt and/or 14 PFAS are below TCEQ PCLs.
- Installing treatment systems at impacted wells; **258** point of entry treatment systems installed to date.
- Coordinating with the City of Lubbock to build municipal water lines to affected homes in city limits under a Cooperative Agreement.
- Maintaining and sampling treatment systems to ensure drinking water criteria are met.

PREVENT

- The Air Force discontinued AFFF use following base closure in September 1997.

Completed to date

Installed **299** new monitoring wells on and around the former Reese AFB during SI and APA fieldwork activities.

Collected a total of **1,336** soil samples, **749** groundwater samples, **105** sediment samples and **49** surface water samples during SI and APA fieldwork activities.

Sampled a total of **540** DW wells: identified **266** private wells and **two** municipal wells that exceed the HA and/or TCEQ PCLs.

Milestones

Mar. 2018 - Ongoing — Recurring DW sampling and treatment system O&M

June 2019 — Public Meeting and finished installing individual treatment systems

Sept. 2019 — Awarded contract for APA investigation

June 2020 — Initiated Phase I APA investigation fieldwork

Sept. 2020 — Awarded the remainder of the APAR investigation

Mar. 2021 — Continued APA Phase II investigation fieldwork

Sept. 2023 — ICM contract awarded and design phase began

Nov. 2023 — Submit APAR to TCEQ

Jan. 2024 — Final APAR approved by TCEQ

Jan. 2024 — Response Action Plan began, estimated completion 2026

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