

Air Force Installation & Mission Support Center



Air Force Response to Per- and Polyfluoroalkyl Substances (PFAS)

Paul Carroll

Former Chanute AFB

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Agenda



- **What are PFAS?**
 - Background
- **Air Force Response**
 - Identify – Respond – Prevent
- **Chanute Results and Actions**
 - Preliminary Assessment/Site Inspection
 - Next Step - Remedial Investigation
 - Keeping the Community Informed
- **More Information**
- **Questions?**



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What are PFAS?



PFAS are a group of synthetic fluorinated chemicals. Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) are two organic chemicals within the PFAS group that were used in industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, waterproof fabric, some food packaging, and the firefighting agent Aqueous Film Forming Foam (AFFF).

- AFFF is widely used at commercial and military airports across the U.S.; the Air Force began using AFFF in the 1970s to extinguish petroleum fires, commonly associated with burning aircraft, to save people and property.
- In 2009, the Environmental Protection Agency issued provisional health advisories (HA) for PFOS and PFOA, followed by a lifetime HA in 2016 of 70 parts per trillion (ppt) for PFOS and/or PFOA in drinking water. The HA applies only to drinking water for humans.
- PFOS/PFOA are classified as emerging contaminants because:
 - ☑ They have reasonable pathways to reach drinking water sources.
 - ☑ They present a potential unacceptable risk to human health.
 - ☑ Regulatory standards are evolving.

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What are PFOS and PFOA? Background



The Air Force is taking aggressive measures to reduce the risk of mission-related PFOS/PFOA contamination to human drinking-water sources.

- **In June 2009, DoD established policy and assigned responsibilities for the identification, assessment and risk management of emerging contaminants.**
- **In 2010, AFCEC began a comprehensive assessment that determined AFFF may have been released at the following locations:**

Active Bases
Reserve Bases
Air National Guard Bases
Closed Bases

Fire Training Areas
Emergency Response Sites
Aircraft Crash Sites
Other release areas

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Air Force Response Identify



IDENTIFY:

Preliminary Assessment (PA)

A base-wide records review identifies fire training areas, crash sites, and other areas at installations where AFFF may have been released.

Of the 39 AF BRAC installations requiring PAs, 100% are complete.

Site Inspection (SI)

AFCEC conducts groundwater, surface water, soil, and sediment sampling to verify releases and identify potential pathways to human drinking water. If sampling indicates potential pathways to human drinking water supplies, AFCEC expands sampling and may also test public and private drinking water wells.

Of the 30 AF BRAC installations planning an SI, 100% are complete.

Remedial Investigation (RI)

AFCEC continues the CERCLA process when a release is confirmed to determine the nature and extent of contamination and assess risk to human health and the environment.

Of the 30 AF BRAC installations planning an RI, 12 have been awarded and 7 are in the contracting phase.

Current as of 30 Oct 2022

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Air Force Response Respond



RESPOND:

Response Actions

When AFCEC determines PFOS/PFOA levels exceed the HA in drinking water, the Air Force will take measures to reduce risk and, if needed, provide an alternate drinking water source, like bottled water, until a permanent solution is in place.



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Air Force Response Chanute



Non-Drinking Water Response:

- PFOS and PFOA were detected in Landfill 2 leachate pumped from the collection system under the landfill. The Fire Training Area, a confirmed AFFF release area, is located next to Landfill 2 and groundwater flows towards the landfill.
- The Air Force installed a granular activated carbon (GAC) system to treat Landfill 2 leachate prior to discharge to the Village of Rantoul publicly owned treatment works (POTW) in 2016.



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Former Chanute AFB Preliminary Assessment



- **A Preliminary Assessment was completed in 2016**
 - Personnel Interviews
 - Historical Document Reviews
 - Archives Research at National Archives Repositories
- **Reviewed areas where AFFF was stored, handled, used or released**
 - Crash sites/aircraft fires
 - Areas where AFFF use or release was documented via personnel interviews, reports, etc.
 - Note that Fire Training Areas were investigated before the PA
- **Twelve potential AFFF areas requiring investigation on the former Chanute AFB (one was added during the SI)**

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Former Chanute AFB AFFF Areas



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Former Chanute AFB Site Inspection



- **SI Sampling conducted between 2014 and 2017**
 - **Screening levels have changed since the reports. The following is based on comparison to the current screening levels (May 2022 EPA Regional Screening Levels [RSLs]).**
 - **Wisconsinan Groundwater (shallow)**
 - 49 Wisconsinan monitoring wells sampled (new and existing)
 - All Wisconsinan wells show PFOS or PFOA above the EPA RSLs
 - **Illinoisan Groundwater**
 - 8 Illinoisan monitoring wells sampled (new and existing)
 - PFOS and PFOA were not detected in any of the wells
 - **Soil**
 - 81 soil boring locations
 - 67 locations show PFOS and PFOA above the EPA RSLs

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Former Chanute AFB Site Inspection (continued)



- **SI Sampling conducted between 2014 and 2017 (continued)**
 - There are no screening levels for surface water, sediment, and stormwater
 - **Salt Fork Creek Surface Water and Sediment**
 - 9 co-located on base surface water and sediment locations
 - PFOS and PFOA were detected in surface water and sediment
 - **Stormwater**
 - 41 stormwater sample locations (samples collected from onbase stormwater manholes)
 - PFOS and PFOA were detected in all but one location

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Next Steps Remedial Investigation



■ Remedial Investigation

- Contract in the process of being awarded
- Field work anticipated to begin late summer
- 12 AFFF Release Areas, Salt Fork Creek, Stormwater System, Sanitary Sewer System
- In general, the sampling approach is consistent with previous RIs
 - Soil and Wisconsin groundwater sampling at all areas
 - Additional Illinoisan groundwater sampling
 - Sanitary sewer sampling and additional stormwater sampling (including outfalls to Salt Fork Creek)
 - Salt Fork Creek surface water and sediment sampling upstream, on-base, and downstream
- Human health and ecological risk assessment
- Screening levels (federal and state) will be updated as needed

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Keeping Residents and Community Informed



- **The Air Force is committed to being transparent in its handling of PFAS-related issues and maintaining open dialogue with communities, regulators and other stakeholders.**
- **The Air Force is working with regulators, city and state officials, and other stakeholders to continually adapt our response strategy to this emerging concern and develop long-term cleanup strategies in accordance with Federal and State mandated processes.**

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More Information



For more information on PFAS, visit:

Air Force Civil Engineer Center

www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/

Environmental Protection Agency

www.epa.gov/pfas

Agency for Toxic Substances and Disease Registry

www.atsdr.cdc.gov/pfas/

Illinois EPA

www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx

Media inquiries/support contact:

AFIMSC Public Affairs Office 1-866-725-7617 or AFIMSC.PA.workflow@us.af.mil

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More Information Former Chanute AFB



For more information on PFAS at former Chanute AFB, visit:

Chanute BRAC page

<https://www.afcec.af.mil/Home/BRAC/Chanute.aspx>

AF Administrative Record (AR)

<https://ar.afcec-cloud.af.mil/>

Select “BRAC” at the top, then select “Chanute AFB” from the Installation List. Enter the AR # from below in the corresponding search field and click on “Search.”

- Final Site Investigation Report for AFFF Areas, December 2018 (AR 603728 and 593849.1)
- Final Perfluorinated Compounds Preliminary Assessment (PA), May 2016 (AR 477553)

Paul Carroll, AFCEC BRAC Environmental Coordinator (BEC)

806/885-5010; paul.carroll.1@us.af.mil

Chris Peters, Illinois EPA Remedial Project Manager

Christopher.M.Peters@illinois.gov

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More Information



Questions?

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