

Air Force Civil Engineer Center



Cannon AFB PFOS/PFOA Update

17 March 2021



Agenda



- **Introductions**
- **What are PFOS and PFOA**
- **Existing PFOS/PFOA Authorities**
- **CERCLA**
- **DAF Strategy**
- **Whole of Government Approach**
- **Investigations & Response Actions**
- **Remedial Investigation**
- **Additional Information**
- **Going Forward**
- **Restoration Advisory Board**



Introductions

- **Community Members**
- **Clovis, NM Representatives**
- **Environmental Protection Agency**
- **New Mexico Environmental Department**
- **Air Force Installation and Mission Support Center**
- **Air Force Civil Engineer Center**
- **Cannon Air Force Base**



Whole of Government Approach



- **The US Air Force has long, strong relationship with the Clovis/Portales community, and we share the community's concern about PFOS/PFOA issues.**
- **Our first priority is addressing drinking water risk because drinking water is the most immediate pathway to human consumption. We have done that, but there's more to be done.**
- **We understand your concerns are broader, and we are working with regulators, legislators, community leaders, residents and others to find solutions.**
- **This issue requires a whole-of-government approach, and the Air Force is grateful for the efforts by legislators and others to create mechanisms to address PFOS/PFOA issues.**



What are PFOS and PFOA?

- **Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) are synthetic fluorinated organic compounds used in many industrial and consumer products, including: nonstick cookware, waterproof fabric, some food packaging, and the firefighting agent Aqueous film forming foam (AFFF).**
 - **1970s: Air Force began using AFFF**
 - **In 2009, the Environmental Protection Agency (EPA) issued provisional Health Advisories (HAs) for PFOS and PFOA in drinking water**
 - **May 2016, the EPA issues lifetime HAs of 70 parts per trillion (ppt) for PFOS and PFOA (combined) in drinking water**



Existing PFOS/PFOA Authorities



- **EPA recommends but does not mandate action for human drinking water above 70 ppt**
- **CERCLA allows DAF to address emerging contaminants**
- **NDAA and OSD implementing guidance**
- **"DERP statute" 10 USC 2701-2711, Superfund Amendments and Reauthorization Act of 1986 and NCP**
- **Limited FDA guidance/standards on consuming agricultural products**
- **Limited EPA guidance/standards on other exposure pathways; inhalation or contact, or ecological risk**



CERCLA

Comprehensive Environmental Response, Compensation and Liability Act

The Air Force's investigation work and mitigation actions are guided by CERCLA

AFCEC is moving forward aggressively in accordance with the CERCLA process to identify, define and mitigate releases of PFOS/PFOA



The CERCLA process:

- **Ensures thorough investigation work**
- **Promotes accountability, community involvement and long-term protectiveness**



DAF Strategy

- **Mitigation of drinking water exposure**
- **Revised fire fighting operations**
- **Gather data in anticipation of future standards being established**
- **Whole of Government approach**
- **DoD is funding and participating in health studies via the ATSDR**
- **DoD is funding cleanup technology research and development**



Investigations to Date

- **Preliminary Assessment (PA) Results (Oct 2015)**
 - Identified 20 areas where PFOS/PFOA may have been released into the environment; 10 areas recommended for SI
- **Site Investigation (SI) Results (Aug 2018)**
 - Identified 6 of 18 on-base groundwater monitoring wells exceeding the lifetime HA



Investigations to Date



- **Expanded Site Investigation Results (Aug/Sep 2018)**
 - A total of 25 discreet water samples obtained
 - Three exceedances of the lifetime HA identified/validated
 - Two detects below the lifetime HA identified/validated
 - Range of detects 7.9ppt to 1,649ppt
 - All other sample locations were non-detect for PFOS/PFOA



Response Actions

- **Expediently notified impacted community members of concentrations exceeding Lifetime Health Advisory (LHA) for drinking water**
- **Immediately provided alternate drinking water to impacted users, severing the pathway**
- **Actively working to install point of use drinking water filtration system at locations that exceeded the LHA for drinking water**
- **Transitioned to C6 AFFF in fire suppression systems; more environmental friendly**
- **Training exercises no longer utilize AFFF; eliminates new sources**



Remedial Investigation

- **Remedial Investigation awarded August 2020**
 - **The Primary Objective of the Phase I remedial investigation is to define the nature and extent of PFOS/PFOA in environmental media on and off base**
 - **Level of effort planned to complete the phase I remedial investigation**
 - **26 initial new groundwater monitoring wells, and up to 37 new groundwater monitoring wells if needed**
 - **153 initial soil borings, and up to 209 soil borings if needed**
 - **80 initial surface soil samples, and up to 122 surface samples if needed**
 - **Installation of 12 suction lysimeters at source locations**



Remedial Investigation

- **Phase I remedial investigation Period of Performance 5 years from August 2020**
 - **Year 1 (Sep 20 – Sep 21) - Develop comprehensive work plans includes regulatory review/approval – no field work can commence until plans are completed and approved**
 - **Years 2 through 4 (Oct 21 – Jan 24)**
 - **Sample existing private irrigation wells around Cannon AFB**
 - **Install additional monitoring wells on base and off base**
 - **Groundwater monitoring well/lysimeter installation and sampling**
 - **Soil, surface water, and sediment sampling**
 - **Year Five Data Analysis and Reporting (Feb 24 – Aug 25)**
Includes regulatory review/approval the Phase I Remedial Investigation Report.



Additional Information



- **Admin Record Links to Cannon AFB reports:**
 - Admin Record <https://ar.afcec-cloud.af.mil/>
 - PA: AR# 1941
 - SI: AR# 1938
 - ASI: AR# 1940
 - RRSE: AR# 2063
- **Dept. Air Force Response to PFOS and PFOA**
 - <https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>



Going Forward

- **Continue to communicate and report progress utilizing quarterly public meetings**
- **Follow CERCLA process**
- **Whole of Government approach**
- **Aggressively collect data needed and respond as standards are developed**



Restoration Advisory Board (RAB)



- On February 17th Cannon AFB published a Public Notice for Solicitation of Interest in the establishment of a RAB
- RAB covers all environmental restoration activities at the base
- 45 day comment period 17Feb-3Apr
- Please send any interest, comments or questions to 27SOCES.cannon.rpm@us.af.mil
- Additional information can be found at <https://www.cannon.af.mil/Environmental/>



Any question please contact
27SOCES.cannon.rpm@us.af.mil