
Department of the Air Force



Presentation

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Subcommittee on Defense

Environmental Restoration

Witness Statement of

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Introduction

Chair McCollum, Ranking Member Calvert, and distinguished members of the Subcommittee, thank you for the opportunity to provide a summary of the Department of the Air Force (DAF) Environmental Restoration Program. The DAF Environmental Restoration Program conducts cleanup in response to releases of hazardous substances, pollutants and contaminants resulting from our mission activities, including manufacturing, industrial maintenance and DAF operations.

The DAF Environmental Restoration Program, also known as the DAF Environmental Cleanup Program, operates on a risk-based framework to prioritize highest those sites posing the greatest human health or environmental risk, to ensure we address our worst sites first. We comply with all applicable legal requirements governing cleanup, including the Defense Environmental Restoration Program (DERP) statute (10 U.S.C. § 2700-2715) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC 9601-9628) and associated implementing regulations. Additionally, our cleanup activities are guided by policy issued by the Department of Defense (DoD) and the Environmental Protection Agency.

The DAF Environmental Restoration Program addresses two categories of cleanup sites: the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP) at Air Force, Space Force, Air Force Reserve, Air National Guard (ANG), and Base Realignment and Closure (BRAC) installations in the United States and U.S. territories. The Defense Environmental Restoration Account (DERA) is authorized to fund cleanup at Air Force, Space Force, and Reserve installations, and at certain ANG installations to fund cleanup of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

Environmental Restoration Program Objectives

The program's main priority is to protect our Airmen, Guardians, civilian workforce and families who live and work on our installations, and in our surrounding communities, by reducing risks to human health and the environment caused by our activities, and in accordance with federal cleanup laws.

Our first objective is to identify, investigate, and prevent human exposure to hazardous substances, pollutants or contaminants attributable to DAF operational activities at active Air and Space Force installations, off-site locations where hazardous substances may have migrated, and sites that DAF formerly owned. Second, we work to complete the environmental restoration process for impacted soils, groundwater, surface water, or sites known or suspected to contain unexploded ordnance, discarded military munitions or munitions constituents. Third, we emphasize maximizing transparency, public participation, and collaboration on our cleanup activities through engagement with our regulatory partners, federally recognized tribes, Alaska and Hawaii native organizations, and local communities that surround and support our installations. Communication is a key element of DAF mission objectives that enhances the mutual understanding of our processes, improves cooperation, and informs about our potential solutions that mitigate impacts.

DAF Cleanup Progress to Date

Since inception of DERA, and the DAF Environmental Restoration Program, we have been committed to fulfilling our cleanup responsibilities under CERCLA. Our progress to date reflects the program's maturity and overall good program health due to the consistent, stable funding Congress has provided. The DAF Environmental Restoration Program has identified a total of 8,464 sites (7,426 IRP sites and 1,038 MMRP sites) at active installations that required some level of investigation and cleanup. An additional 5,290 (5,148 IRP and 142 MMRP) were identified at BRAC locations. At the close of FY 2021, through aggressive efforts to achieve DoD goals to promptly clean up sites, DAF achieved the Response Complete phase of CERCLA at 78% or 6,628 of those DERA-eligible cleanup sites and 96% or 5,053 BRAC sites.

The remaining 1,836 active DAF IRP or MMRP sites and 237 BRAC sites require further investigation or cleanup and we continue to aggressively address them. We have made significant progress in the active DAF MMRP by returning over 87% of the total acreage to mission use, totaling 663 thousand acres.

Consistent with our priority to protect our personnel, their families and our surrounding communities, DAF is committed to addressing adverse human health impacts from emerging

chemicals of environmental concern, such as per- and polyfluoroalkyl substances (PFAS), attributed to the DAF. Installations with PFAS releases are the most recent sites added to the DAF Environmental Restoration Program inventory, and are contained within the total number of sites listed above. For purposes of our PFAS response program, the DAF conducts a comprehensive evaluation of PFAS impact at each installation as a whole. To date, 696 (DAF Active, Reserve, ANG) PFAS Environmental Restoration Program sites at 204 installations have been identified.

DAF Environmental Restoration Funding

DAF Environmental Restoration Program funding has remained stable over the last three years, with funds appropriated, DAF has been able to address additional PFOS/PFOA response actions and accelerate investigations.

Our first priority is to protect human health by quickly taking action to ensure there is not a complete exposure pathway between a constituent of concern and a person. Once that priority is addressed, DAF cleanup efforts are planned, programmed, budgeted, and executed to effectively and efficiently achieve DoD and DAF cleanup program goals. The DAF IRP is a risk-based program that applies funding to projects that pose the highest risks to human health and the environment following the DoD Relative Risk Site Evaluation (RRSE) framework. The RRSE evaluates the relative risk posed by one site in relation to other sites. DERA funding is then applied to projects based on the relative risk-based priority of all DAF cleanup requirements. Sites entering the Remedial Investigation phase of CERCLA are evaluated based on a program-wide analysis of site data that considers three main factors: the hazard or risk the constituent of concern poses; the risk of that constituent of concern migrating; and whether a human or ecological receptor exists either through groundwater, surface water, sediment and/or surface soils. Sites are then grouped into high, medium and low risk categories based on the evaluation of relative risk, and then sequenced to receive funding. This iterative process ensures we have a science-based, reproducible step-wise approach to sequence the many sites in our portfolio, and that we apply funding to our worst sites first.

Community Engagement

Consistent engagement and meaningful community involvement are fundamental to DAF's cleanup program. We value the communities that surround our Air and Space Force installations, because our installations thrive best when they are immersed in a robust and supportive community. Our community stakeholders include local, state, and Tribal governments; non-governmental organizations; and community members. We strive to proactively build and sustain public trust, understanding, and engagement on the cleanup actions we take to address environmental releases resulting from DAF activities. We recognize that building trust with the community requires accountability. We prioritize cleanup actions to address drinking water and work hard to listen and allay local community concern about drinking water supplies that may have been impacted from our mission. We do so by engaging the local community during critical decision-making processes related to our cleanup activities, obtaining their input, and addressing their specific issues as we gather data to develop informed cleanup solutions.

We realize the CERCLA process can be complicated, confusing and lengthy, and as such, DAF strives for transparency when communicating and collaborating with community and other stakeholders on the status of our cleanup investigations and planned response actions. We discuss and share validated data that does not contain personally identifiable information and plans with members of the regulatory community, elected officials and local community representatives.

One type of community engagement is achieved through the Restoration Advisory Board (RAB). The RAB is a community-based advisory body designed to be a focal point for the exchange of information between the Air Force and/or Space Force, and the community, on our cleanup issues and activities. RAB meetings are open to the public, and typically include but are not limited to, reviewing and commenting on environmental documents and activities, providing information and status updates to the community, and receiving input from the community. DAF responds to RAB comments and questions, distributes the responses to RAB members, and includes them in meeting minutes that are made available in DAF's administrative record public website (<https://ar.afcec-cloud.af.mil>). RAB members also have the ability to apply for Technical Assistance for Public Participation (TAPP) grants to obtain private sector, independent technical

assistance to help them better understand the scientific and engineering issues underlying an installation's environmental cleanup activities.

Due to COVID-19 restrictions during much of calendar years 2020 and 2021, in-person RAB engagements were limited. However, installations and Air Force entities used virtual engagements to reach stakeholders. Most notably, Air National Guard and Air Force Civil Engineer Center activities used web-based platforms to host virtual RABs.

In addition to RABs, the DAF also utilizes Community Relations Plans that identify issues of possible community concern, providing a framework and structure for communication between the installation and the community. These plans outline how the public can participate in the decision-making process, and are part of the public record of community involvement during the investigation and remedial phases of CERCLA.

Challenges

Continuing Resolution

Continuing Resolutions delay funding and present a challenge to execution of environmental remediation contracts. The DAF cleanup program must receive funding ahead of contract negotiation and award. A continuing resolution delays funding and puts the program behind the obligation curve, thereby creating a bow wave of work to be completed in the remaining months of the fiscal year, adversely impacting our ability to schedule and execute cleanup work.

Per- and polyfluoroalkyl substances (PFAS)

PFAS refers to the entire class of approximately 600 per- and polyfluoroalkyl substances in commerce, of which PFOS and PFOA were historically the most widely used throughout the United States. These manmade compounds are found in many industrial and consumer products because they increase resistance to heat, stains, water, and grease.

In May 2016, the Environmental Protection Agency (EPA) issued drinking water lifetime health advisories (HAs) of 70 parts per trillion for two PFAS, perfluorooctane sulfonate (PFOS) and perfluorooctanic acid (PFOA). Since EPA's issuance of that HA, the Air Force has proactively

responded to PFOS/PFOA releases above that HA attributable to DAF activities by following the CERCLA process to identify and investigate releases, determine the appropriate response actions based on risk, and prioritize responses and cleanup.

Since 2016, we have been investigating and quickly addressing PFOS/PFOA in drinking water on DAF installations and off-base. DAF takes swift action to address drinking water when PFOS or PFOA from our activities is found in drinking water at levels above EPA's HA. These actions, which are consistent with EPA's recommended actions, include providing bottled water, point-of-use filtration, whole-house filtration, municipal water supply hookup, municipal water treatment, or new well drilling. Drinking water response actions were conducted at 39 DAF installations.

To date, the DAF has expended approximately \$998 million to identify, investigate and respond to PFAS releases. 99% of the DAF Preliminary Assessments (PA) identified under CERCLA and utilizing the EPA HA in effect when initiated, are complete (202 of 204 installations). As a result of the PAs to date, 13 installations require no further action. 70% of the CERCLA Site Inspections (SI) (133 out of 191 installations) utilizing the EPA HA in effect when initiated, are complete, and the remainder have been initiated and are estimated to be completed in FY2024. CERCLA Remedial Investigations (RI) have been initiated to determine the nature and extent of PFAS and to assess risk at 81 installations.

In FY 2022, with funds appropriated, DAF expects to obligate \$215 million for PFAS response. DAF will continue to expedite awarding SI and RI contracts. Completion timelines for the RIs will be dependent on evolving EPA toxicity data and/or regulations.

Successes

DAF leadership actively participates in the DoD PFAS Task Force, established in July 2019, which provides strategic leadership and direction to ensure a coordinated, aggressive, and holistic approach on DoD-wide efforts to address PFAS.

The DAF fully supports Strategic Environmental Research and Development Program (SERDP) / Environmental Security Technology Certification Program (ESTCP) investment in

studies aimed at developing fluorine-free surfactant formulations for use in Aqueous Film-Forming Foam (AFFF) fire-suppression operations. The DAF is investing in technology transfer to support the SERDP/ESTCP efforts by piloting small-scale projects to bridge the gap between bench-top research and development success and full scale technology implementation. Examples of DAF environmental remediation technology investments include the use of electrochemical treatment to destroy PFAS through an Ion Exchange Resin Regeneration System at Shaw, Cannon, and Wright Patterson Air Force Bases. Multiple Broad Agency Announcements through AFWERX (Technology Directorate of the Air Force Research Laboratory) have been initiated for bench scale/pilot study of innovative technologies.

For the past 5 years, DAF has been aggressively looking “upstream” to prevent new PFAS impacts by implementing new DoD and DAF policy initiatives restricting use of AFFF by: replacing legacy AFFF with an alternative formula in all emergency response vehicles and stockpiles (2018), limiting use for emergency response situations only (2019), treating uncontained accidental releases as a hazardous substance spill (2020), ceasing off-installation use in mutual aid responses (2021), and requiring the replacement of all AFFF fire suppression systems in hangars with automatic water sprinkler systems with a very few exceptions (2021), thereby creating an intentional path to meet the NDAA mandated phase out of AFFF with PFAS constituents by Oct 1, 2024.

Conclusion

The DAF’s main priority is to protect our Airmen, Guardians, civilian workforce and families who live and work on our installations, and in our surrounding communities, by reducing risks to human health and the environment caused by our activities, and in accordance with federal cleanup laws. Our Environmental Restoration programs operate on a risk-based framework where sites with the highest risk are prioritized to ensure we address our worst sites first. We remain committed to fulfilling our cleanup responsibilities; we follow DoD cleanup policy and goals, engage with EPA and our state regulatory partners, and utilize the authorities provided by CERCLA and the DERP statutes.