

**Senate Committee on Homeland Security
and Governmental Affairs**

By: Mr. Richard Kidd
Deputy Assistant Secretary of Defense (Environment and Energy Resilience)

Hearing: December 9, 2021

Chairman Peters, Ranking Member Portman, and distinguished members of the Committee: Thank you for the opportunity to discuss the Department of Defense's actions to address perfluoroalkyl and polyfluoroalkyl substances (PFAS) at DoD installations, specifically focusing on our clean-up activities as well as our actions in response to the July 22 report from the Department's Inspector General. The Department is committed to addressing our releases of PFAS under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) to protect the health of our personnel, their families, and the communities in which we serve.

The Department recognizes the importance of addressing concerns related to the cleanup of PFAS. For this reason, we have invested significant effort into understanding and addressing the challenges posed by this particular class of chemicals.

PFAS are a large class of chemicals found in many consumer products, industrial products, as well as in aqueous film forming foam (AFFF). AFFF is mission critical to DoD because it quickly extinguishes petroleum-based fires, thus minimizing loss of life and valuable equipment. There is significant attention on DoD's use and the subsequent potential impact to human health and the environment. DoD has responded by limiting our use of AFFF to emergencies and fully contained training situations, switching to newer formulations that contain significantly reduced levels of PFAS, researching alternatives to AFFF, and conducting cleanup nationwide. DoD is also on track to transition to a PFAS-free firefighting solution as required by the National Defense Authorization Act.

While there is a growing body of scientific evidence regarding adverse human health effects related to several specific PFAS, as of November 2021 EPA has completed human health assessments for four PFAS (i.e., PFOA, PFOS, PFBS, and GenX chemicals). While five additional PFAS assessments are expected to be completed by 2024, a significant challenge in evaluating PFAS is the lack of hazard and dose-response data suitable for human health risk assessment for the large majority of environmentally relevant PFAS. It also remains unclear what specific products, other than AFFF, may contain one or more of the over 600 PFAS in commerce. DoD is not waiting to act. Instead, the Department is acting even as we work to fill information gaps with research and data.

The Department's Emerging Chemicals of Concern (EC) process is intended to guide decision making throughout DoD to achieve a policy balance between continued use of products identified as containing ECs and impacts to DoD programs and personnel without their use. It is this EC program that comes under scrutiny in the July 22, 2021 DoD Office of Inspector General (OIG) report.

The recommendations of the DoD OIG report call on the Department to revise the EC Program's Instruction document, and to complete the EC process for PFAS-containing materials other than AFFF. Both of these recommendations are being implemented. The DoD OIG report, however, premised its recommendations on the EC Program being "proactive" and concurrently making risk-based decisions on impacts to DoD programs that are "measurable." Unfortunately, measurable criteria, such as nationwide regulatory standards (e.g., for drinking water) which DoD traditionally relies upon in its EC Program impact assessments, are currently under development for PFAS. The Department supports EPA initiating the rulemaking process under multiple federal laws as identified in the EPA PFAS Strategic Roadmap. Additionally, the Department continues to work closely with the White House Office of Science and Technology Policy, EPA, and other Federal Agencies to advance the scientific understanding of PFAS. Part of this cooperation includes a robust research and development effort conducted through DoD's environmental research program, as well as supporting other agency efforts to create the measurable, objective health and environmental criteria needed to guide DoD actions. The Department looks forward to working in an interagency capacity as the science develops to inform a proactive and measurable approach to risk-based decisions on PFAS.

History of the Department's Response to PFAS

The Department's response to PFAS began in the late 2000's as EPA initiated voluntary phase-out activities with U.S. manufacturers, and published a provisional health advisory in 2009 for PFOS and PFOA in drinking water. These actions in turn prompted the Department to include PFAS chemicals into the EC program, but not develop Risk Management Actions, because at the time, the perception was that industry was taking appropriate actions to phase out use of these chemicals, and we continued to monitor regulatory and health effects developments.

The Department has been taking action to address PFAS since 2016 when EPA published its finalized toxicity values in its lifetime drinking water health advisory (HA) for PFOS and PFOA. Even before this measurable science-based number was issued in 2016, DoD's EC Program monitored regulatory developments, issued a risk alert in 2011, and recommended actions in 2015 to prevent AFFF releases during maintenance, testing and training activities, and convert existing supplies of AFFF to newer formulations that do not contain PFOS or PFOA above the quantitation limits. These EC Program risk management actions were implemented.

The Department's efforts increased significantly with the establishment of a PFAS Task Force in July 2019. This Task Force provides strategic leadership and direction to ensure a coordinated, aggressive, and holistic approach on DoD-wide efforts to address PFAS. The Task Force continues to regularly meet and is responsive to the direction of this Administration. The PFAS Task Force is focused on four main goals:

- Mitigating and eliminating the use of the current aqueous film forming foam (AFFF), with an emphasis on research and development;
- Fulfilling our cleanup responsibilities;
- Understanding the impacts of PFAS on human health; and
- Expanding our PFAS-related public outreach.

PFAS Cleanup Actions:

DoD is committed to addressing DoD's PFAS releases under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and sharing information with our DoD families and community members in an open and transparent manner. While DoD has obligated over \$1.2 billion to implement PFAS cleanup responses, we are committed to continuously improving the responsiveness of the program, incorporating advanced technologies, best practice and new knowledge as rapidly as possible. And, while this program is both legally and technically complex, its underlying purpose is simple; to address the releases we made and keep the American people informed.

As part of the CERCLA process, DoD is addressing both drinking water and groundwater, taking short and long term cleanup actions, and working in collaboration with EPA, other Federal agencies, and communities throughout this process.

Drinking Water: DoD takes quick action to address drinking water and provides alternative water when PFOS or PFOA from DoD activities is found off-base in drinking water at levels above EPA's lifetime Health Advisory (HA). DoD's actions are consistent with EPA's recommended actions, which include treatment of drinking water or providing alternative water supplies, such as bottled water or connecting residents served by private wells to public drinking water systems.

Ground Water: The remaining cleanup efforts are primarily to address PFAS in groundwater, which can be technically complex and take a long time to complete.

The Department is investing over \$150M in research and development to advance technologies to expedite the cleanup process through the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). These two programs support over 150 technology development and demonstration projects, including the development of analytical methods for PFAS in media other than drinking water, such as supporting the development of EPA's Draft Method 1633 published by EPA in August 2021.

Because DoD's PFAS cleanup program is so central to addressing PFAS exposures, I'd like to provide information on the scope and status of our cleanups. DoD is performing an assessment at 699 installations, where DoD may have used or potentially released PFAS. As of September 30, 2021, DoD has completed 190 of those 700 assessments, of which 75 require no further action, while 115 will continue to the next step in the CERCLA process. DoD plans to complete the remaining 510 assessments by the end of FY2023. In total, DoD has obligated nearly \$1.5 billion to address PFAS releases through FY2021 and current estimates for FY2022 and beyond exceed \$2 billion. These estimates are expected to grow as ongoing assessments are completed. The assessments at all 700 installations investigate PFAS in drinking water and groundwater, no matter what the source is on a DoD installation. While the IG Report encourages DoD to look at sources more broadly than AFFF, we already address all DoD sources of PFAS releases to groundwater under our cleanup program

As I indicated in my testimony to the House Appropriations Committee, Subcommittee on

Defense, on May 26, 2021, when addressing the tough challenge of PFAS cleanup the rate of progress is defined, primarily by the rules that govern our physical world. Physics, chemistry and toxicology establish the realm of the possible and dictate parameters of our work. Based on what we know today, it will take years to fully define our nationwide clean-up challenges and probably decades before clean-up is complete.

Recognizing this, the Department is planning for the long-term as we are intent on making sustained progress on all PFAS challenges, not just cleanup, while investing in scientific research to explore every opportunity to accelerate the process. And while completing the cleanup process takes many years, drinking water exposures are quickly addressed and remain a priority.

The Department has been addressing PFAS, following the science and direction of Congress, for a number of years. Congress has provided the Department with significant additional funds to address PFAS clean-up as well as a clear set of requirements to guide our actions. Studies on PFAS health effects continue to develop, as does the science supporting risk-based regulatory standards.

Recently EPA's Office of Water requested that EPA's Science Advisory Board (SAB) review four draft documents that will be used to inform the development of a national primary drinking water regulation for certain PFAS. The documents include new draft toxicity values for PFOS and PFOA and include an evaluation of over 400 recent scientific studies. The new data and analyses in EPA's draft documents indicate that the toxicity values (the levels at which negative health effects could occur), for PFOA and PFOS are much lower than previously understood – including near zero for certain health effects. The conclusions in EPA's draft documents are preliminary and it is important for EPA to seek comment from the SAB as part of a peer review process to ensure that the public is provided with the best evaluation of the available information.

EPA anticipates a final report from their SAB in the spring of 2022. EPA has stated that it will move as quickly as possible to issue updated health advisories for PFOA and PFOS that reflect this new science and input from the SAB including public comment. DoD is and will continue to work closely with EPA as these values are evaluated and when new health advisories or final toxicity values are released, DoD will incorporate those values into its cleanup program.

DoD Office of the Inspector General Report:

In the July 22, 2021 PFAS report, the DoD Office of Inspector General (OIG) provided two recommendations to be addressed by the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)). The first recommended that the Department revise the DoD's Emerging Chemicals (ECs) Program Instruction. And, the second recommendation was for the Department to complete the EC Process for PFAS-containing materials other than AFFF. The Department partially concurred with the first recommendation and is in the process of implementing both.

The IG's first recommendation was that the Department "include the requirement for officials to initiate proactive risk management actions based on measurable risks to the DoD areas of concern to mitigate contaminant effects of ECs at DoD installations."

DoD agreed to address this recommendation by revising the Instruction to more clearly articulate EC Program activities and committed to:

- 1) develop risk measures consistent with the "Department of Defense Risk Management Guide for Defense Acquisition Programs" to quantify risks to the DoD areas of concern;
- 2) require EC Program officials to apply the measurable risk management requirements and, when warranted, present risk management options to the Emerging Chemicals of Concern Governance Council (ECGC);
- 3) include the development of risk management options for ECs on the EC Watch List and the EC Action List; and
- 4) include a process to formally inform DoD users of ECs of their status in the EC Process. The Acting ASD(S) also stated that the USD(A&S) plans to issue these requirements in a policy memorandum by January 2022 and to incorporate the requirements in the next update to DoDI 4715.18, which is anticipated to occur by September 2025.

Since the report was released, DoD has reviewed the relevant sections of the EC Instruction and has begun drafting a policy memorandum to document the changes necessary to address these OIG recommendations. DoD is on track to issue the final memorandum by January of 2022.

In the second recommendation, the DoD IG suggested that “the Department complete the EC Process for potential PFAS exposure caused by DoD activities from PFAS-containing materials other than Aqueous Film Forming Foam (AFFF) by developing and presenting validated risk management options for the PFAS on the EC Action List to the ECGC”, as required by the DoD EC Instruction.

The Department agreed with the recommendation and stated that validated risk management options will be presented to the ECGC in the second quarter of FY 2022.

What the report did not state, but which is apparent in review of the records and from my time in this position, is that the Department needs to strengthen the entire EC program, starting with more frequent executive level meetings and oversight. The last meeting of the ECGC was in January of 2016. While the DoD PFAS Task Force has performed this oversight function for PFAS, we intend to conduct an executive level review by holding an ECGC in March of 2022 and to continue to do so for medium and high risk ECs on an annual basis going forward.

Conclusion

DoD is taking deliberate and sustained action to address risks to human health and the environment resulting from DoD activities. And the Department is committed to doing more—based on the results of site assessments at our installations and the evolving science. DoD is working closely with EPA and fully supports EPA moving through the regulatory process to establish nationwide drinking water standards. In addition, the Department is taking the actions necessary to address the DoD OIG recommendations and is on track to meet the current timelines. DoD will continue to address the effects of its releases to ensure that it protects the health of its DoD personnel, their families, and the communities in which they serve, as well as protect the environment.