Senate Committee on Environment and Public Works
Hearing entitled, *"Examining the federal response to the risks associated with per- and polyfluoroalkyl substances (PFAS)"*
March 28, 2019
Questions for the Record for Ms. Sullivan

Chairman Barrasso:

1. **In 2017, the Department identified 401 active or closed military facilities with known or suspected releases of PFOS or PFOA. Has the Department finished determining whether the releases of PFOS or PFOA at all of these sites affect drinking water? If not, when will the Department finish the process? Please provide an estimated timeframe (quarter, year).**

   Response:

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2. **What are the Department's legal obligations to a community whose groundwater the Department has contaminated with PFOS and/or PFOA in excess of 70 parts per trillion (ppt), but below 380 ppt?**

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3. **Has the Department (or another entity on behalf of the Department) informally or formally estimated the cost to clean up all sites, where it has contaminated groundwater with PFOS and/or PFOA above 70 ppt, to a level of 70 ppt? If so, please provide those informal or formal cost estimates.**

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4. **Has the Department (or another entity on behalf of the Department) informally or formally estimated the cost to clean up all sites, where it has contaminated groundwater with PFOS and/or PFOA above 380 ppt, to a level of 70 ppt? If so, please provide those informal or formal cost estimates.**

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5. **Has the Department identified and retrieved all aqueous film forming foam (AFFF) with PFOS within its inventory in the United States and around the world?**

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6. **Please answer the following:**

   a. **What is the status of the AFFF with PFOS within its inventory?**

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   b. **If the Department has destroyed all the AFFF with PFOS, what process did it use to ensure that the disposal of PFOS did not enter the environment?**

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c. **Are you confident that the process, which the Department used to destroy PFOS, protects human health and the environment?**

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d. **Is the Department seeking additional guidance from EPA on how to dispose of PFAS?**

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7. **Please provide an update on the status of the Department's efforts to identify or develop AFFF that does not include PFAS, but meets the military's performance specifications.**

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8. **Please answer the following:**

a. **Does the Department conduct any land-based testing, maintenance, or training exercises with AFFF, which contains PFAS?**

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b. If so, under what circumstances do the testing, maintenance, or training exercises take place and to what extent does the Department prevent AFFF from contaminating the environment?

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9. Do AFFF manufacturers disclose how much PFAS is in each unit of AFFF, which the Department procures? If not, has the Department asked AFFF manufacturers to disclose this information prior to procurement? If not, why not?

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10. I'm told that the Department uses PFAS for the purposes of chrome plating.

a. To what extent has the Department assessed its discharges of PFAS into the environment during the plating process?

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b. Please list the Department's other principal uses of PFAS.

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11. When does the Department expect to test for PFAS in groundwater outside of the Cheyenne Air National Guard Base and F.E. Warren Air Force Base, respectively? Please provide an estimated timeframe (quarter, year) for each facility.

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12. **If the Department finds that groundwater contaminated with PFAS has migrated outside of the Cheyenne Air National Guard Base or F.E. Warren Air Force Base, will it establish the full extent of the plume(s) of PFAS outside of the base(s)?**

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13. **When does the Department expect to test for PFAS at Wyoming's Formerly Used Defense Sites – specifically, the Former Atlas "D" and "E" missile sites and the former Casper Army Airfield facility? Wyoming's Department of Environmental Quality would like Atlas D Missile Site 4, which is located near a source of Cheyenne's water supply, to be tested as soon as possible. Please provide an estimated timeframe (quarter, year) for each facility.**

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14. **If the Department finds groundwater contaminated with PFAS at one or more of Wyoming's Formerly Used Defense Sites, will it establish the full extent of the plume(s) of PFAS at the site(s)?**

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15. **What do you need from chemical manufacturers and processors or others in the private sector to better understand and respond to the risks associated with PFAS chemicals?**

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16. Are there lessons or best practices that we can learn from other countries' armed forces, which are also addressing the risks to public health and the environment associated with PFAS? If so, what are these lessons or best practices?

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17. What steps can the Executive Branch take to improve coordination among federal agencies as it responds to the risks associated with PFAS chemicals?

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18. What steps can the Executive Branch take to improve communication with states, tribes, local communities, and the public about the risks associated with PFAS chemicals?

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Ranking Member Carper:

Questions about the PFAS Action Plan

19. **Please provide the following:**

    a. **Copies of all documents exchanged between DOD and EPA regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.**

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    b. **Copies of all documents exchanged between OMB and DOD regarding the PFAS Action Plan or the groundwater cleanup guidelines for PFOS and PFOA.**

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    c. **A list of all diversions, or planned diversions, of funds intended for a site cleanup of non-PFAS contamination to PFAS clean-up efforts (including the name and location of the site, the purpose of the funds diverted or planned to be diverted from that site, and the nature of the PFAS efforts planned for the diverted funds).**

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Questions on Groundwater Cleanup Guidance

20. **In your testimony, you stated that "We support the use of the long-established CERCLA risk-based cleanup process established in EPA's implementing guidance."**

    a. **Does DOD support the establishment by EPA of a screening level for PFAS-contaminated sites? By screening level, I mean a level of PFAS contamination that would be deemed to suggest the possible presence of more than one PFAS at potentially higher concentrations. PFAS contamination at this level would require additional testing. If not, why not?**

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b. **Does DOD support the establishment by EPA of a remedial level for PFAS-contaminated sites? By remedial level, I mean a level of PFAS contamination that would trigger non-emergency clean-up actions to occur. If not, why not?**

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c. **Does DOD support the establishment by EPA of a removal level for PFAS-contaminated sites? By removal level, I mean a level of PFAS contamination that would trigger emergency measures, such as the provision of alternative water supplies, to be implemented. If not, why not?**

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d. **Does DOD support a requirement by EPA that clean-up of PFAS contamination must occur at levels that exceed the removal level, and that the levels of contamination be reduced down to the remedial level? Why or why not?**

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e. **Does DOD support a requirement by EPA that clean-up of PFAS contamination must occur at levels that exceed the remedial level but do not exceed the removal level, and that the levels of contamination be reduced down to the remedial level? Why or why not?**

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21. According to EPA[2], "to provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, EPA has established the health advisory levels at 70 parts per trillion."

a. Does DOD agree that EPA's PFOA and PFOS health advisory level of 70 parts per trillion is the appropriately-protective level to protect against exposures to PFOA- and PFOS-contaminated drinking water? Why or why not?

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b. Does DOD agree that residents of the United States are exposed to PFAS through many more pathways than drinking water, including from their carpets, food packaging and other every-day exposures? Why or why not?

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c. **Does DOD agree that EPA's cleanup guidance for groundwater contaminated by PFAS should take into account the fact that residents of the United States are exposed to PFAS via many other means? Why or why not?**

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d. **Does DOD agree that 32 percent of Americans' drinking water comes from groundwater, and that's not even counting the 13 million households who get their drinking water from private wells? Why or why not?**

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e. **Does DOD agree that EPA's cleanup guidance for groundwater contaminated by PFAS should be as protective of human health as EPA's drinking water health advisory level? Why or why not?**

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Questions on PFAS-contaminated DOD locations

22. **In response to Senator Rounds, you stated, about off-site contamination, that "where DOD is the known source, it is our responsibility to clean up the water and provide safe drinking water."**

    a. **Please provide a list of all DOD sites at which PFAS contamination has been found or is suspected, along with the type (i.e. which PFAS) and amount of contamination. Has DOD tested all sites within the U.S. for such contamination? If not, how many sites remain untested, and when does DOD plan to test these locations?**

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    b. **For each DOD site that has been identified as known or suspected to be PFAS-contaminated, has DOD tested off-site to determine whether the contamination has spread outside the DOD site? Please provide a list of all known or suspected PFAS-contaminated DOD sites at which off-site contamination has also been identified, along with the type (i.e. which PFAS) and amount of contamination. If DOD has not yet tested off-site to determine whether the contamination has spread outside a DOD site, why not, and when does DOD plan to conduct such testing?**

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    c. **When DOD identifies PFAS contamination, does DOD alert residents and former residents (both on- and off-site) who may have been exposed to it? If so, please describe these efforts. If not, why not?**

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d. **Has DOD ever disagreed with an assertion that DOD was the source of off-site PFAS contamination? If so, please provide documentation describing the nature of the contamination and the basis for DOD's disagreement that DOD was its source.**

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23. **In response to Senator Duckworth, you stated that "again, no one on our military installations is drinking water above the Lifetime Health Advisory, and that hasn't happened since 2016."**

    a. **Is that also the case for anyone not living on a DOD military installation but whose drinking water is contaminated by PFAS known to be the responsibility of DOD? If not, please provide a list of DOD sites for which the off-site communities have not yet been assured of drinking water that is at or below the Lifetime Health Advisory.**

    Response: Deliberative Process / Ex. 5

    b. **Is that also the case for anyone not living on a DOD military installation but whose drinking water is contaminated by PFAS *suspected* to be the responsibility of DOD? If not, please provide a list of DOD sites for which the off-site communities have not yet been assured of drinking water that is at or below the Lifetime Health Advisory.**

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Questions on State Standards

24. In response to Senator Markey, you stated that DOD "will meet any properly promulgated standard that is issued by the State and roll it into our cleanup program."

a. Is it DOD's position that this applies to both State drinking water and groundwater cleanup standards? If not, why not?

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b. Please provide a list of all State drinking water and groundwater cleanup PFAS standards that DOD believes were not 'properly promulgated,' along with a specific legal explanation for whatever impropriety DOD has concluded about each such State standard.

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c. **Please provide a list of all State drinking water and groundwater cleanup PFAS standards that DOD does believe were 'properly promulgated' and will meet.**

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d. **A recent article[4] described several instances in which DOD was taking State regulators to court or otherwise opposing their efforts to hold DOD accountable for PFAS contamination in their states. For example, when New Mexico regulators issued a Notice of Violation against an Air Force base, the Air Force responded by saying that the New Mexico statute did not apply to Air Force Facilities, and sued the state. According to the article, the Air Force is also resisting compliance with State requirements in Michigan, New York and Colorado. Please provide a list of each instance in which DOD:**

i) **refused to comply with a state regulation, law or enforcement action related to PFAS,**

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ii) **sued a state because of its disagreement with a state regulation, law or enforcement action related to PFAS (along with the current status or final disposition of each lawsuit as applicable),**

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iii) **was sued by a state because of its failure to comply with a state regulation, law or enforcement action related to PFAS (along with the current status or final disposition of each lawsuit, as applicable) or**

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iv) **complied as requested or directed with a state regulation, law or enforcement action related to PFAS.**

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Senator Capito:

25. **During my questioning, you acknowledged that the Department of Defense remains uncertain about the volumes and locations of stockpiles of legacy PFOA and PFOS. Yet, you estimated in this and other congressional hearings that the cost of remediation of these stockpiles would be around $2 billion. What is this cost estimate based upon if the scale of the problem remains unclear?**

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a. **Do you have a firmer sense of the scale of the stockpile for inclusion in the record?**

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26. **You stated that you were unsure if a facility in East Liverpool, Ohio was involved in the destruction of some portion of the Department's legacy PFAS. Can you verify for the record if Heritage Thermal Service's hazardous waste incinerator was involved in the destruction of some portion of the Air Force's AFFF stockpile?**

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a. **If so, how much material has been combusted there to date?**

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b. At what temperatures and for how long were these materials combusted?

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c. How were these the temperatures and durations determined and is the Department confident that these measures are capable of completely destroying the PFAS material?

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27. During the hearing, you said that all destruction of the Department's legacy AFFF stockpiles is being conducted at EPA-certified facilities. Is the Heritage Thermal Service facility in East Liverpool, Ohio EPA-approved?

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a. Has it had any history of significant Clean Air Act violations?

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28. In my questioning of EPA Assistant Administrator Ross, he stated that the EPA is currently working on air standards and monitoring techniques for PFAS in the air medium – including for stack emissions – as part of its PFAS Action Plan. This implies that there currently are no such standards. Without such standards, rooted in science, how does the Department select contractors to combust this material and certify that PFAS pollution is not being emitted into the air?

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Senator Gillibrand:

29. **Ms. Sullivan, the public has the right to know the scope of PFAS contamination at all military bases across the country, in order to protect drinking water on and near to those installations and address any impacts of contamination to those communities. In an exchange with Senator Rounds, with regard to PFAS at military bases you stated, "It's everywhere."**

    a. **Will you provide Congress and the public with all records on PFAS contamination, including all detections at any level, not just those up to the 70 parts per trillion threshold?**

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    b. **What is the Department's plan to inform the public about the severity and scale of PFAS contamination on and near military installations?**

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30. **Is the Department of Defense (DOD) responsible for the environmental contamination caused by PFAS at National Guard bases resulting from DOD guidelines that clearly require those bases to use firefighting foam containing fluorinated chemicals?**

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31. **Why has DOD not requesting more funding for Environmental Restoration accounts to provide those funds to National Guard bases for addressing PFAS contamination, and instead requiring those bases to use Operations & Maintenance funding?**

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Senator Markey:

32. **In the hearing, I asked you whether the Department of Defense will commit to meet lower State cleanup levels, if applicable, when working to remediate Federal facilities contaminated with PFAS. You responded, "We will meet any properly promulgated standard that is issued by the State and roll it into our cleanup program." However, press reports note that the Department of Defense is contesting state regulator actions on PFAS.**

    a. **Please provide the Department of Defense's definition for a "properly promulgated standard."**

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b. **Please provide a list of any state-level PFAS standards that the Department of Defense considers to be "properly promulgated."**

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c. **Is the Department of Defense tracking all state regulatory orders on PFAS?**

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i. **If not, why not?**

Response: Deliberative Process / Ex. 5

ii. **If so, how many of these orders has the Department of Defense complied with?**

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d. **Is it DOD's position that state groundwater cleanup levels constitute "applicable, relevant or appropriate" requirements under CERCLA?**

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33. **Please provide a list of all communities with which the Secretary of Defense has entered into Cooperative Agreements regarding PFAS contamination.**

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a. **Please provide a list of the site criteria used to determine and establish these agreements.**

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34. **In your testimony, you said, "Currently, no fluorine-free versions of AFFF meet the military stringent performance requirements."**

    a. **What specific Military Standard performance metrics are not met by fluorine-free firefighting foams?**

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    b. **How do fluorine-free AFFF compare directly with currently-used AFFF in firefighting performance metrics?**

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Senator Sullivan:

35. **Under current FAA regulation AFFF meeting military specification that include certain PFAS chemicals are required at many State and local government operated airports. What is the anticipated timeline for a replacement non-fluorinated foam that would meet military specification?**

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36. **What are the total estimated costs for clean-up of PFAS contamination under DOD jurisdiction?**

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