

GAO Review of DOD Drinking Water Contaminants (code 100947)
Follow-up Questions for the Department of the Navy

Note: These questions are addressed to the Department of the Navy, to answer on behalf of both the Navy and the Marine Corps. If answers differ for the Navy and/or Marine Corps, please note where that is the case.

PFOS and PFOA Sampling (USMC - GF)

1. To what extent is the Navy on track to meet its Dec. 31, 2016, deadline for submitting test results and any necessary corrective actions for PFOS and PFOA to the Deputy Assistant Secretary of the Navy for Environment?
2. How is the Navy tracking any progress with the established deadline(s)? Please provide any relevant documentation.
3. To what extent have interim reports been provided on progress made? Please provide any such reports.
4. If any final reports have been submitted on PFOS and PFOA sampling, please provide copies of the reports.

PFOS and PFOA Cleanup (NAVFAC)

5. Apart from the EPA's lifetime health advisory for PFOS and PFOA, to what extent does guidance exist for the Navy to follow for any cleanup activities in groundwater, soil, etc. at installations where PFOS and/or PFOA are found?
 - a. For example, to what extent has EPA and/or states issued guidance on the levels of PFOS and/or PFOA to be found in groundwater, soil, etc.?
 - b. In addition, does any Navy-specific cleanup guidance on PFOS and/or PFOA exist? If so, how was the guidance developed? (Please provide a copy, if it exists.)
6. To what extent does any existing guidance provide the Navy with the necessary information to perform cleanup activities of PFOS and/or PFOA?

PFOS and PFOA Costs

7. How much funding, if known, has the Navy spent to date for the following activities, as they relate to PFOS and PFOA? Please provide funding information by fiscal year, if possible.
 - a. Drinking water sampling (USMC – GF - may require a datacall)
 - b. Preliminary assessments (NAVFAC)
 - c. Site investigations (NAVFAC)
 - d. Corrective actions, both on- and off-installation (e.g., granular activated carbon filters, bottled water, etc.) (USMC – GF; I think this is \$0))
 - e. Other activities not included above (please specify what they are) (USMC – GF/G-3/AVN; I would include AFFF disposal, containment, and replacement costs, currently unknown; to date, \$0; should coordinate with the Navy to see how they're going to respond to this)
8. If actual funding by fiscal year is unknown, please explain why.
9. How much funding, if known, does the Navy plan to spend for the following activities in the future, as they relate to PFOS and PFOA? Please provide funding information by fiscal year, if possible.
 - f. Drinking water sampling (USMC – GF; Primarily resampling if detections are found)
 - g. Preliminary assessments (NAVFAC)
 - h. Site investigations (NAVFAC)

- i. Corrective actions, both on- and off-installation (e.g., granular activated carbon filters, bottled water, etc.) (USMC –GF; I think this is \$0)
- j. Other activities not included above (please specify what they are) (USMC – GF/G-3/AVN; I would include AFFF disposal, containment, and replacement costs, currently unknown – to date, \$0; should coordinate with the Navy to see how they're going to respond to this)

10. If planned funding by fiscal year is unknown, please explain why.

AFFF

11. To what extent has the Navy identified an alternative for its AFFF that also meets MILSPEC requirements? (NRL/NAVSEA)

No. The Naval Research Laboratory (NRL) has conducted assessments of various fluorine-free foam products, but to date there is no alternative to AFFF that is able to meet the Milspec requirements. Most importantly, no currently available fluorine-free product can pass the Milspec fire performance requirements. There is currently a Strategic Environmental Research and Development Program (SERDP) effort underway for the development of a non-fluorinated surfactant that can take the place of fluorinated surfactants and still meet the Milspec requirements, however this program is still in the initial stages, and there is no guarantee that it will be successful. However, there is no guarantee that this program will successfully develop a non-fluorinated AFFF that meets the Milspec requirements.

a. If an alternative has been identified, how was this done?

N/A

b. If an alternative has been identified, to what extent has the Navy determined its health effects?

N/A

c. To what extent has the Navy considered the AFFF replacement selected by the Air Force (i.e., Phos Chek)?

The Navy conducted qualification testing of Phoschek 3% AFFF MS in 2015. The product successfully passed all testing IAW MIL-F-24385 and was placed on the Qualified Products List (QPL-24385) on November 10, 2015. As the product is currently listed on QPL-24385, the Navy finds that it is acceptable for use.

12. If the Navy has selected an AFFF alternative, what is the status of removing and replacing current AFFF with this alternative? When is removal and replacement expected to be completed? (N/A – Have not selected an alternative)

13. To what extent can the selected alternative, if any, be used in all types of firefighting equipment (e.g., firetrucks, fire stations, hangar fire suppression, etc.)? (N/A – Have not selected an alternative)