UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

NOV 24 2021

The Honorable Patrick J. Leahy
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Department's response to House Report 116-453, pages 108-109, accompanying H.R. 7617, the Department of Defense (DoD) Appropriations Bill, 2021, is enclosed. The Committee directs the Assistant Secretary of Defense for Health Affairs to update the House and Senate Appropriations Committees on the Department's plan to test and track potential first responder exposure to perfluorinated chemicals as part of their existing, annual medical surveillance exams.

The report includes an overview of occupational per- and polyfluoroalkyl substances (PFAS) exposure assessment research and surveillance, and provides an update on DoD PFAS-blood sampling efforts. It recommends continuing to collaborate with the Department of Health and Human Services and to focus on DoD firefighter PFAS blood testing and tracking.

Thank you for your continued strong support for our Service members, veterans, and their families. I am sending a similar letter to the House Appropriations Committee.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Richard C. Shelby
Vice Chairman

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PERSONNEL AND READINESS

NOV 2 4 2021

The Honorable Rosa L. DeLauro
Chair
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Madam Chair:

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Thank you for your continued strong support for our Service members, veterans, and their families. I am sending a similar letter to the Senate Appropriations Committee.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Kay Granger
Ranking Member

Report to the Appropriations Committees of the United States Senate and House of Representatives

House Report 116-453, Pages 108-109, Accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021

Perfluorinated Chemicals Contamination and First Responder Exposure

The estimated cost of this report or study for the Department of Defense (DoD) is approximately $1100 for the 2021 Fiscal Year. This includes $0 in expenses and $1100 in DoD labor. Generated on 09/08/2021 (9-81DCDA8)

A. CONGRESSIONAL REPORT REQUEST

This report is in response to House Report 116-453, pages 108-109, accompanying H.R. 7617, the Department of Defense (DoD) Appropriations Bill, 2021, which "directs the Assistant Secretary of Defense (Health Affairs) to update the House and Senate Appropriations Committees not later than 180 days after the enactment of this act on the Department's plan to test and track potential first responder exposure to these chemicals [Per- and Polyfluoroalkyl Substances, PFAS] as part of their existing, annual medical surveillance exams."

The DoD provided a briefing on this topic in April 2021 to the House and Senate Appropriations Committees (HAC and SAC), attached. An initial response was provided to the HAC and SAC on August 24th (attached) and this report concludes our response.

B. TEST AND TRACK POTENTIAL FIRST RESPONDER PFAS EXPOSURE

"First responders" include law enforcement, fire services, emergency medical services, and emergency management officials.[1] Of the first responders, only DoD firefighters have regularly worked with aqueous film-forming foam (AFFF) that is known to contain PFAS. Other first responders (non-firefighters):

- likely experience very limited, intermittent AFFF exposures
- medical surveillance exam frequencies are based on exposure to recognized occupational health hazards (may not occur annually)

The DoD is currently focused on conducting blood testing on its firefighters as required by section 707 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2020. In doing so, the DoD will better understand whether this group of first responders, who may have worked regularly with AFFF, have blood-PFAS levels that are associated with their work as firefighters.

C. OCCUPATIONAL EXPOSURE ASSESSMENT RESEARCH AND SURVEILLANCE

There is limited information and research related to PFAS blood levels in occupations that work with materials containing PFAS. Most involve industries that manufactured or worked with PFAS, and several focus on firefighters due to their use of AFFF. Some of these firefighter studies have associated AFFF use with an elevation of certain PFAS – likely related to firefighters who worked with AFFF prior to the early 2000s when polyfluorooctanoic acid (PFOS) was phased out as a primary constituent utent of AFFF.[2]

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[1] Source: Department of Homeland Security accessed at: https://www.dhs.gov/science-and-technology/first-responders on March 17, 2021

[2] EPA, Drinking Water Heatlh Advisory for Perfluorooctane Sulfonate (PFOS). Office of Water. EPA 822-R-004. May 2016, Available at: https://www.epa.gov/sites/default/files/2016-05/documents/pfos_health_advisory_final_508.pdf. Accessed on 9/8/2021.

Within the U.S. Government, the Centers for Disease Control and Prevention (CDC) and DoD are involved in evaluating occupational PFAS exposures. The CDC's National Institute for Occupational Safety and Health (NIOSH)[3] is a research agency that conducts occupational exposure and health assessment, and develops and recommends standards for the workplace. In FY 2020, NIOSH initiated several research efforts involving PFAS blood testing along with selected biomarkers for several civilian (non-DoD) firefighter units. This NIOSH firefighter PFAS research is part of the larger "Fire Fighter Cancer Cohort Study: Multi-city National Research Effort" (https://www.ffccs.org). NIOSH is also considering field research to evaluate current exposures to workers (e.g., breathing zone air concentrations) in several occupations over the next few years.

As directed by section 707 of the NDAA for FY 2020, the DoD began offering blood testing in October 2020 to DoD firefighters during their annual occupational medicine exam. Approximately 20,000 current active duty, Reserve, National Guard, and DoD civilian firefighters who receive an annual exam are being offered blood-PFAS testing.

The DoD worked with the CDC/National Center for Environmental Health (NCEH) to identify laboratories to analyze these firefighter blood samples. The CDC/NCEH identified NMS Labs as one of a few public/private laboratories that conducts analyses for PFAS in blood and, perhaps, the only one that performs clinical analyses and could support the volume of these DoD firefighter samples. A Clinical Laboratory Improvement Amendment-approved laboratory was required to place results into firefighter health records as they accept human-derived samples (serum, plasma, tissue, blood, etc.) for analyses. Their methodology is similar to but not the same as that used by NCEH. The DoD is currently considering whether to make changes in the analytical method to better align with methodologies used by the CDC/NCEH which conducts analysis for general background information (National Health and Nutrition Examination Survey [NHANES][4]), and for the Agency for Toxic Substances and Disease Registry, the CDC/NIOSH samples, and others. While both analytical methodologies are accurate, using different methodologies makes direct comparison of results more difficult.

DoD firefighters can be tracked through their annual occupational medical exams and their results maintained in their occupational medical records at the installation/local level. The results of the PFAS sampling is provided to each individual firefighter. Health care providers and epidemiologists with credentials can access military and civilian firefighter occupational medical records through their electronic health record (EHR); however, not all civilian firefighters' results are currently stored electronically.

[3] Established by the Occupational Safety and Health Act of 1970

[4] NHANES has included sampling for various PFAS and other constituents in the general population since NHANES 1999-2000, and estimates that 98% of the U.S. population has some level of PFAS in their blood. There are no health-based screening levels for specific PFAS that clinicians can compare to concentrations measured in blood samples. As a result, interpretation of measured PFAS concentrations in individuals is limited in its use.

D. DOD FIREFIGHTER BLOOD TESTING AND TRACKING UPDATE

As of April 30, 2021, approximately 4,224 samples were analyzed and included in each firefighter's EHR, respectively. All results from the FY 2021 testing of firefighter blood-PFAS samples are expected to be available by the end of November 2021. The Navy and Marine Corps Public Health Center's (NMCPHC) EpiData Center will extract the results from the DoD firefighter's EHR. The NMCPHC will use this data to conduct population-level summation statistical analyses of the firefighter PFAS blood testing results to include measures of central tendencies and confidence intervals for each of the PFAS tested.[5]

Although blood sampling indicates how much PFAS is present in an individual's blood at a point in time, it cannot by itself be used to define the source, timing, frequency, magnitude, or possible health effects of the exposures that led to the PFAS level. Further, it is difficult to separate relative workplace contribution of exposure to non-workplace exposures – like those experienced by the general population. An optional questionnaire is being considered as a tool to gain more information from firefighters about their demographics and exposures to AFFF.

E. CONCLUSION

The DoD will remain focused on firefighters as required by section 707 of the NDAA for FY 2020 by developing firefighter population-level summation statistics for DoD firefighter PFAS blood sampling results.

The Department will also continue to collaborate with the lead Federal agencies (NIOSH and ATSDR) and others to improve our understanding of potential, occupationally-related health effects.

[5] Blood tests for PFAS are most useful as part of a scientific investigation or health study accomplished at the community (population) level (Agency for Toxic Substatnces and Disease Registry, PFAS Blood Testing, availableat https://www.atsdr.cdc.gov/pfas/health-effects/blood-testing.html (accessed on September 9, 2021)