DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Agency for Toxic Substances
and Disease Registry
Atlanta, GA 30333

March 12, 2015

The Honorable Sloan D. Gibson
Deputy Secretary of Veterans Affairs
U.S. Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420

Dear Mr. Gibson,

I appreciated the opportunity to meet last month with personnel from the U.S. Department of Veterans Affairs (VA), along with my colleagues from the Agency for Toxic Substances and Disease Registry (ATSDR) and Congressional staff, to present on our health studies related to U.S. Marine Corps Base Camp Lejeune. Our agencies share a mutual goal of helping U.S. Marines and their families affected by the past harmful exposures to contaminated drinking water at Camp Lejeune, and I look forward to continuing to build a working relationship with Dr. Agarwal and her colleagues.

One of the topics we discussed during this meeting was the 2009 National Research Council (NRC) report, *Contaminated Water Supplies at Camp Lejeune – Assessing Potential Health Effects*. As I emphasized then, the state of the science has advanced significantly since publication of the NRC report; accordingly, reliance on that report in evaluating the health effects of chemical exposures experienced by Camp Lejeune veterans and their families is unfounded and inappropriate. Below is a brief summary of key scientific developments to which I refer.

Since 2009, ATSDR has completed extensive water modeling and four epidemiological studies to determine if people residing and working at Camp Lejeune or their offspring are at increased risk for certain health effects as a result of past exposure to water contaminated with volatile organic compounds (VOC).

Through water modeling efforts, ATSDR concluded that former Marines and their families served by the Tarawa Terrace Water Treatment Plant from November 1957 through February 1987 received drinking water contaminated with tetrachloroethylene (PCE) at levels that exceeded the current maximum contaminant level (MCL) of 5 parts per billion (ppb).

ATSDR also concluded that former Marines, their families and civilian workers served by the Hadnot Point Water Treatment Plant from August 1953 through January 1985 received drinking water contaminated with one or more VOCs, including trichloroethylene (TCE), at levels that exceeded current MCLs.

ATSDR's marine and civilian employee mortality health studies, released in 2014, concluded exposure to TCE and other VOC-contaminated water was associated with increased risk of death from specific cancers (e.g., kidney cancer and liver cancer) and other causes as well as all cancer combined.

ATSDR's in-utero studies, released in 2013 and 2014, concluded these exposures also were associated with neural tube defects, childhood leukemia, and adverse birth outcomes such as preterm birth, small for gestational age, term low birth weight, and reduced mean birth weight in the affected populations.

These studies make an important contribution to the body of evidence about harmful impacts of these chemicals in general and at Camp Lejeune in particular. For your reference, I have enclosed the following documents:

- Camp Lejeune Published Studies Summary
- Camp Lejeune Summary Table In Utero Studies

The findings of ATSDR's studies are consistent with similar drinking water and occupational studies, as well as meta-analyses of TCE done by the National Institute of Health's National Cancer Institute, U.S. Environmental Protection Agency (EPA), and others, many of which were conducted post 2009.

Also since 2009, EPA and the International Agency for Research on Cancer (IARC) both have classified TCE as "carcinogenic to humans." IARC has classified PCE as "probably carcinogenic to humans," and EPA has classified PCE as "likely to be carcinogenic to humans".

Moving forward, as you continue to consider the current scientific literature relevant to Camp Lejeune, and as future Camp Lejeune studies are released, please know that ATSDR scientists are available to you and your staff to assist in interpreting the findings as well as for any other specialized expertise in toxicology, environmental epidemiology, or other aspects of public health.

Additionally, I propose a regular meeting between myself and appropriate VA leadership to continue productive dialogue and open communication.

I look forward to working with you in this joint effort.

Sincerely,

Patrick N. Breysse

Patrick N. Breysse, PhD, CIH
Director
National Center for Environmental Health and
Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention

Enclosures (2)