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THE HOUSE SCIENCE AND
TECHNOLOGY COMMITTEE

STATEMENT
OF
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FORMER ASSISTANT DEPUTY COMMANDANT
FOR
INSTALLATIONS AND LOGISTICS (FACILITIES)
BEFORE THE
HOUSE SCIENCE AND TECHNOLOGY COMMITTEE
INVESTIGATIONS AND OVERSIGHT SUBCOMMITTEE
ON
CAMP LEJEUNE: CONTAMINATION AND COMPENSATION, LOOKING BACK,
MOVING FORWARD

16 SEPTEMBER 2010

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Representative Miller, Representative Broun, distinguished Members of the Subcommittee; thank you for the opportunity to appear before you and participate in this hearing regarding past drinking water exposures at Marine Corps Base Camp Lejeune. My name is Major General Gray Payne and until recently, I was the Assistant Deputy Commandant for Installations and Logistics for Facilities. I was responsible for Marine Corps facilities and services issues on our installations, to include environmental protection.

I want to begin by saying that the welfare of our Marines, their family members, and our civilian employees is always of paramount importance to us as an organization and as individual Department of the Navy leaders. The Marine Corps is deeply concerned for any military or civilian families who are experiencing or have experienced health issues for any reason and we understand that some may believe their health conditions resulted from past exposure to the water at Camp Lejeune.

Beyond my duties as Assistant Deputy Commandant, I also have a personal interest in this issue, as do many of us in the senior leadership of the Corps. The Marine Corps is and always has been a large family, and we all know people who were stationed or worked at Camp Lejeune during their military careers. My first tour of duty was at Camp Lejeune in 1970. Many of my friends and most of the senior leadership of the

Marine Corps, both officer and enlisted, were at Camp Lejeune during the period when the water was contaminated. We have a personal and professional interest in finding factually and scientifically supported answers to questions about the health of our Marine families. The best way to provide those answers at the present time is to support scientific studies that will improve our knowledge of the situation. We will also keep our Marine family informed of the scientific findings and reports regarding these studies. The Marine Corps is primarily a war-fighting organization, not a scientific one. In order to accomplish this scientific mission for our people, we are funding and receiving assistance from independent, objective, well-recognized leaders in the scientific community. In this situation we rely on the expertise of scientific organizations like the Agency for Toxic Substances and Disease Registry (ATSDR), in the Department of Health and Human Services, and the National Academies, National Research Council (NRC) to inform our understanding of the "state of the science" on these important issues. The Department of the Navy has funded \$22 million in scientific efforts and has exhausted countless hours in direct support of research initiatives.

As with any issue that impacts the public, prompt and accurate dissemination of information is imperative. The Marine Corps takes this responsibility seriously and will continue to

inform those who lived or worked at Camp Lejeune about any new developments. The Marine Corps operates a call center and internet-based notification registry to collect contact information from anyone who may have concerns about past water contamination at Camp Lejeune in order to provide current information to them. The Marine Corps is also continuing its robust outreach campaign including radio, print and internet advertising. Our efforts have resulted in over 163,000 individuals joining our notification registry.

In addition to our communications with the public, the Marine Corps will continue to support and cooperate with the independent organizations like the ATSDR, Department of Veteran's Affairs, and others in an effort to get answers for those of our Marine Corps family and keep them informed of our progress.

KNOWLEDGE OF PAST ENVIRONMENTAL CONTAMINATION

In 1981, Camp Lejeune officials became aware that volatile organic compounds (VOCs) were interfering with the analysis of potable water samples that were being collected in preparation for the implementation of future drinking water standards for Total Trihalomethanes (TTHM). Sampling conducted by a Navy contractor revealed that another chemical present in the water sample was interfering with the analysis; however, the specific

type of chemical and source were unknown. Base personnel continued to sample the water for TTHMs over the next several years using various laboratories with varying results. Through targeted sampling in 1982 the Base detected that two of Camp Lejeune's eight public drinking water systems contained trichloroethylene (TCE) and perchloroethylene (PCE). TCE and PCE are chemicals commonly found in degreasing agents and dry cleaning solvents, respectively. It is important to note two key points. First, there were no drinking water regulations in place for TCE or PCE at the time of this discovery. Second, although the chemicals were identified in the drinking water systems, their origin remained unknown.

In the early 1980's, the Naval Assessment and Control of Installation Pollutants (NACIP) program, a predecessor of the current Department of the Navy (DON) Installation Restoration (cleanup) Program, was already in the process of identifying contaminated sites on Base for further sampling and investigation. Plans were in place to sample potable wells near the identified contaminated sites. It was this sampling that eventually identified, between late 1984 and early 1985, individual wells drawing groundwater containing TCE, PCE and other VOC's such as benzene. Base officials engaged in a concentrated effort to sample all wells on the installation as soon as they learned that the first well was impacted in late

1984. The Base completed this evaluation effort in 1985. If and when the Base officials received information that a well was contaminated, it was promptly removed from service.¹ Although the Base began its proactive responses in 1984, initial Safe Drinking Water Act regulation of these VOCs did not begin until three years later. Final regulations were not in force for TCE and benzene until 1989 and not until 1992 for PCE.

It is important to keep in mind that the events surrounding this situation occurred anywhere from 25 to over 50 years ago. Environmental standards and regulations have changed dramatically over the intervening years as a result of advances in scientific knowledge and increased awareness. The events at Camp Lejeune must be considered in light of the scientific knowledge, regulatory framework, and accepted practices that existed at the time, not in the context of today's standards.

NOTIFICATION

Camp Lejeune first notified military personnel and family members about the drinking water issue on December 13, 1984 through an article appearing in Camp Lejeune's newspaper, *The Globe*. Camp Lejeune also distributed a public notice to residents of Tarawa Terrace on April 30, 1985. In May 1985,

¹A separate investigation by the State of North Carolina in 1985 revealed leaks from an off-base dry cleaner had contaminated the wells near the Tarawa Terrace housing area. The Hadnot Point water system was contaminated by on-base sources.

Camp Lejeune issued a press release announcing the water contamination problem. In that press release the Base explained the steps planned to restore water services to the affected base residents. Following a May 1985 Camp Lejeune press event, the Jacksonville Daily News, Wilmington Morning Star, and Raleigh News and Observer printed several stories on the situation and further disseminated the information. These were just the early steps in what evolved into a 25 year public outreach campaign.

From 2000 through 2001, the Marine Corps undertook an extensive outreach campaign in support of ATSDR's children's health survey - including press briefings and releases, messages to Marines world-wide, stories in base publications and websites, and a town hall meeting in Jacksonville, North Carolina. These efforts resulted in numerous stories in local and regional print and television news outlets across America. Because of the Marine Corps outreach efforts, ATSDR was able to obtain enough respondents to continue their current epidemiological study on birth defects and childhood cancers.

Congress later became interested in the public outreach program, resulting in the FY08 National Defense Authorization Act mandate that the Secretary of the Navy attempt to directly notify former residents of Camp Lejeune of their potential exposure to the chemicals. The Act also required that ATSDR develop a health survey to be included with the notification

letter. On September 14, 2007, the Marine Corps posted a link to the registration database on its website (www.marines.mil/clsurvey) to provide easy access for former Camp Lejeune residents and workers, as well as other interested parties, to register to receive updates on the ongoing studies or information about other new developments on this important issue. The Marine Corps also created an enhanced call center, which became operational on September 17, 2007, to allow people to register by phone. Each new registrant receives a welcome packet that includes information about the issue and points of contact for additional information.

The Marine Corps continues to encourage former base residents and workers to register through general notification efforts. These general notifications include articles and/or advertisements in newspapers such as USA Today; periodicals such as Time, Newsweek, Sports Illustrated, and Good Housekeeping; internet advertisements on general consumer websites such as WebMD, Weather.com., and NFL.com; military related websites such as the Leatherneck, U. S. Navy Institute, and the Vietnam Veterans Association; internet search engines such as Yahoo and Google; and radio broadcasts. In addition, the Marine Corps sendt posters to Veterans of Foreign Wars District Offices, Veterans' Centers, commissaries, and Veteran's Affairs treatment centers across the country. To date, more than 163,000

individuals are on the registry. We receive new registrations each week, and we continue our pro-active outreach efforts.

COORDINATION WITH DEPARTMENT OF VETERANS AFFAIRS

As part of the Marine Corp's robust outreach and notification campaign we have worked extensively with various Veterans Affairs (VA) offices. In 2007 and 2008 we sent notification and registry posters to over 200 VA centers in all 50 states as well as the US Territories and Washington, DC. We also sent copies of posters in 2007 and 2008 to Veterans of Foreign Wars District Offices and Military Treatment Facilities. In March 2009, we worked with VA public affairs personnel to prepare an email to alert VA program directors and other executives of new information about the water contamination; in particular, the pending release of the National Research Council report regarding Camp Lejeune Water. The email established a direct communication mechanism for VA personnel to contact Headquarters Marine Corps for additional information and assistance. We currently provide periodic updates of our notification registry information to the VA to enable them to assist us in our outreach activities.

SUPPORT OF ATSDR HEALTH INITIATIVES

All military installations on the National Priorities List of hazardous waste sites, including Camp Lejeune which was listed in 1989, undergo a Public Health Assessment (PHA) conducted by the ATSDR to determine if there are any current or past health concerns resulting from past practices.

ATSDR first visited Camp Lejeune in 1991. Beginning with this trip, Camp Lejeune provided information to ATSDR as part of the development of the PHA; the Marine Corps continues to provide ATSDR open access to any potentially relevant data in our possession today. As a result of the PHA, the ATSDR recommended an epidemiological study of former Camp Lejeune residents to determine what effect, if any, the VOCs may have had on the health of children exposed prenatally, a population ATSDR considered to be the most susceptible to health impacts from VOCs. In support of this recommendation, a health survey was conducted in 1999 to identify children with certain health conditions who might be included in a case control study.

In 2000, ATSDR requested assistance from the Marine Corps to reach additional participants for the health survey started in 1999. At the time, ATSDR had approximately 6,500 participants and they needed more for a statistically valid study. The Marine Corps helped ATSDR identify participants eligible for the survey through targeted and global

notifications. For example, in January 2000, Camp Lejeune held an "open house" with base residents and the Jacksonville community to discuss issues about the drinking water previously discovered to contain VOCs. In August 2000, Headquarters Marine Corps sent a message to all Marines worldwide in an effort to reach potential ATSDR survey participants. The Marine Corps published articles in numerous base newspapers including the Quantico Sentry, Camp Lejeune Globe, and Camp Pendleton Scout. Camp Lejeune sent a press release to other military base publications. In November 2000, Headquarters Marine Corps held a press briefing at the Pentagon asking media to assist in helping to reach potential survey participants. On January 25, 2001, Headquarters Marine Corps sent a second message to all Marines worldwide in an effort to reach potential ATSDR survey participants. In February 2001, the Marine Corps began regional media outreach efforts, and reached the following outlets:

- (A) TV Stations - 1027 outlets
- (B) Daily Newspapers - 1373 outlets
- (C) Weekly Newspapers - 1171 outlets

Total: 3571 media outlets contacted.

In order to support the ATSDR survey, in 2001, Headquarters Marine Corps obtained approval from the Department of Defense for a limited release of Social Security Number information

covered by the Privacy Act to the ATSDR. Headquarters Marine Corps conducted extensive data searches for contact information to help ATSDR locate potential survey participants.

Partly as a result of these efforts, ATSDR closed their survey in January 2002 with 12,598 participants; enough to go forward with their current epidemiological study on birth defects and childhood cancers.

In July 2003, the ATSDR released a progress report of the survey and concluded that a follow-on case control/epidemiological study was warranted. The Marine Corps actively participated in publicizing this report through a press release, a webcast by the Deputy Commandant for Installations and Logistics, and by posting survey information on the Marine Corps Camp Lejeune drinking water webpage. ATSDR also determined in 2003 that extensive water modeling would be needed at Camp Lejeune in support of the case control study. That water modeling continues today and is currently projected to be complete in mid to late 2011. The case control study will be completed sometime thereafter.

In July 2005, in an effort to fully identify the universe of information related to the historic drinking water issue at Marine Corps Base Camp Lejeune (MCBCL), Headquarters Marine Corps (HQMC) contracted to provide a comprehensive, transparent document search and collection effort covering Camp Lejeune

areas and facilities. The contractor conducted a preliminary assessment and on 7 November 2005, invited ATSDR to attend its kick-off brief for the base-wide document search. ATSDR staff made comments that the Marine Corps integrated into search parameters. In December of 2005, the Marine Corps provided ATSDR a copy of the "Camp Lejeune Water" (CLW) database on CD per ATSDR request.

From February through July 2006, the contractor conducted an exhaustive search of MCBCL and its facilities. The Marine Corps intended to systematically identify and inventory pre-1988 documents pertinent or useful to analyzing the water issue at MCB Camp Lejeune. The search encompassed the contents of 718 buildings and resulted in locating 8,599 documents (390,782 PDF pages). In July 2006, ATSDR followed up this search with another visit to MCBCL to review more documents.

From February 2008 through March 2009, the contractor converted documents into electronic formats by scanning, indexing, and image-preserving, as part of the on-going records management initiatives in direct support of the document repository. In November 2008, ATSDR made another site visit to review collected documents. In early 2009, the Marine Corps provided ATSDR with user name and password access to hundreds of MCBCL environmental documents via a controlled internet gateway in order to facilitate ATSDR's receipt of information.

Furthermore, ATSDR was provided with a full document repository index prior to another visit on 26-27 May 2009. ATSDR used this index to identify documents they wanted to review for further evaluation. ATSDR reviewed the documents while at Camp Lejeune and the Marine Corps again provided copies of requested documents.

In June 2010, the Department of the Navy and ATSDR established a Data Mining Technical Workgroup to complete the identification, review, and exchange of documents, data, and information needed for ATSDR's studies. Both agencies felt that the most effective way for ATSDR to continue with its studies was to establish this Workgroup that will closely review all repositories of available data and information in order to identify any additional data and information that may be of value to ATSDR's health initiatives at Camp Lejeune. The Workgroup's efforts serve to formalize the existing shared commitment to complete the data mining activities to completion. The Workgroup has convened three times and has made significant progress to complete its goals.

INDEPENDENT REVIEWS AND INVESTIGATIONS

Three independent reviews have been conducted of the actions taken by Marine Corps personnel on this matter: an independent Fact-Finding Panel chartered by the Commandant of

the Marine Corps, an EPA Criminal Investigation Division (CID) investigation, and a Government Accountability Office (GAO) review.

In 2004 the Fact-Finding Panel determined, among other things, that Camp Lejeune provided drinking water at a level of quality consistent with general water industry practices in light of the evolving regulatory requirements at the time.

Among the EPA CID's 2005 conclusions was a determination that there had been no violations of the Safe Drinking Water Act, no conspiracy to withhold information, falsify data, or conceal evidence.

In 2007 the GAO issued a report reviewing the Camp Lejeune drinking water factual history and technical aspects of ATSDR study. The report had no findings or recommendations for the Marine Corps.

In accordance with the 2007 National Defense Authorization Act, the Marine Corps contracted with the National Academies' National Research Council (NRC) to review the evidence regarding potential associations between exposure to contaminated drinking water at Camp Lejeune and adverse health effects in prenatal children, children, and adults. The NRC review report concluded that while former Camp Lejeune residents and workers were exposed to unregulated solvents, the committee did not find sufficient evidence to justify causal inference for any health

effects it reviewed. The report also noted that the exposures required to cause adverse effects in laboratory animals were much larger than the highest measurements available on the Camp Lejeune water supplies; evidence that humans have lower sensitivity to TCE and PCE than rodents; epidemiological data largely from occupational settings with higher, longer-term exposures to TCE and PCE that has not generated compelling evidence of adverse health effects; and the relatively short-term intermittent nature of the exposures incurred at Camp Lejeune. The review concluded, however, that adverse health effects could not be ruled out and that the DON (and other policy makers) should move forward with responses they deem appropriate based on available information.

CONCLUSION

As I mentioned above at the beginning of my testimony, the welfare of our Marines, their family members, and our civilian employees is of paramount importance I have received many letters and have personally spoken with individuals who feel that they have been harmed by Camp Lejeune water. Their situations are often sad, and my heart goes out to them. The Marine Corps is committed to fully and properly utilizing the tools available to support our Marines and family members. However, under current law the Department of the Navy cannot

provide compensation for claims for illness, disease, or injury without a demonstration of causation and we do not have that at this time. Currently, scientific studies haven't determined reliably whether diseases and disorders experienced by former residents and workers at Camp Lejeune are associated with their exposure to contaminants in the water supply because of data shortcomings and methodological limitations. We assure you that we will continue maximum efforts to take appropriate actions for our Marines, their family members, and civilian employees.