

Raines GS12 Rick H

From: Jungreis Capt Jeremy N
Sent: Monday, September 11, 2000 9:24 AM
To: Raines GS12 Rick H
Cc: Crouch Capt Alan F; Paul GS13 Neal N
Subject: Q&A.DOC

Rick,

Please provide input as appropriate below. Trying to help PAO to answer some of the tougher questions from CNN. More to come . . .

Thanks,

J.

Possible Responses to CNN Queries and Modifications to Portions of PA Plan

1. Why is ATSDR doing the study now?

Camp Lejeune understands that ATSDR has a statutory mandate pursuant to federal law (CERCLA and SARA) to conduct public health studies in cases where there may have been human exposure to toxic substances. Records indicate that residents who received their drinking water from the Tarawa Terrace and Hadnot Point drinking water plants may have been exposed to potentially toxic substances in their drinking water in the years prior to 1985. The current ATSDR study is the second (3d?) since 1995 (**IR--verify this**). ATSDR can best explain why they first started their study in 1995, and their general methodology for conducting studies.

2. What information was released about the contamination and when?

Camp Lejeune and the Marine Corps have always been forthright about the VOCs found in Base drinking water. The Base has complied with all legally required public notifications, and has gone far beyond. Camp Lejeune voluntarily issued press releases in December, 1984 (when contamination of certain water wells was first confirmed), and in the Spring of 1985 (after all contaminated wells had been shut down). In 1989, the Base newspaper, The Globe, ran a three part series on previous water well contamination and efforts to clean-up industrial pollution aboard the Base. Additionally, Camp Lejeune pursuant to its responsibilities under CERCLA, compiled an extensive publicly available administrative record detailing the location and extent of contamination, and the process for remediation. This comprehensive record has been located at the Base Library and the Onslow County Public Library since ?? (**IR**). Additionally, the record has been posted on the internet in searchable format since ??? (**IR**)

It is important to note that the Marine Corps, to this date, does not know if exposure to VOCs at Camp Lejeune has harmed anyone. There is not yet evidence that any illness is linked to the drinking water contamination, and it is still uncertain as to which individuals may have been exposed to VOCs. The research being done by ATSDR has only recently brought to our attention a possible correlation between VOC contaminated water and particular childhood illnesses. That is why the Marine Corps is fully assisting ATSDR with contacting potentially exposed individuals. We want to take care of our former Marines and their families. If there is a problem, we want to help ATSDR to find it and fix it.

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Question: What is the extent of the contamination? What has been done to remediate the site? Is it on the Superfund/NPL list?

Answer:

At Marine Corps Base (MCB) Camp Lejeune, two drinking water distribution systems were found to contain compounds that were used in dry cleaning and degreasing operations. These compounds, known as volatile organic compounds (VOCs), consisted primarily of trichloroethylene (TCE) and its breakdown products dichloroethylene (DCE) and tetrachloroethylene (PCE). It is not known when the drinking water systems first became contaminated with these compounds; however, by February 1985, all contaminated drinking water wells had been located and shut down. The contaminated wells have not been used since.

One source of groundwater contamination (primarily PCE) was an off-base dry cleaning business, ABC Cleaners. Solvents migrated from ABC Cleaners onto MCB Camp Lejeune and contaminated two drinking water wells that provided water to residents of the Tarawa Terrace Housing area. ABC Cleaners was listed on the Environmental Protection Agency (EPA) Superfund list in 1989 and is being cleaned up by EPA, Region IV. To date, the EPA Region IV has completed the following actions under the Superfund program:

- Preliminary Assessment
- Site Inspection
- Remedial Investigation
- Feasibility Study
- Human Health Risk Assessment
- Record of Decision
- Remedial Design
- Remedial Action (ongoing)

Presently, EPA, Region IV continues to take remedial action through operation of a pump and water treatment plant that is removing the solvents from the groundwater at the site. Additional information regarding the cleanup of the ABC Cleaners Superfund site can be found at <http://www.epa.gov/superfund/sites/cursites/c3nc/s0402718.htm>

In addition to the contamination originating from ABC Cleaners, past maintenance and degreasing operations aboard MCB Camp Lejeune resulted in solvents migrating into some of the water wells that supplied the Hadnot Point Drinking Water Distribution System. The Hadnot Point Drinking Water Distribution System provides water to the Hospital Point Housing area and Hadnot Point Industrial area.

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Family housing areas served by the Holcomb Boulevard Water Distribution System may have also been exposed to a short period of VOC contamination as the result of an emergency connection to the Hadnot Point Water Treatment Plant. In January 1985, diesel fuel from an underground storage tank within the Holcomb Boulevard Water Distribution System leaked into the Holcomb Boulevard water supply. Upon discovery, the Holcomb Boulevard Water Treatment Plant was shut down and the Holcomb Boulevard Water Distribution System was temporarily connected to receive treated water from the Hadnot Point Plant. (It was later discovered that the water from the Hadnot Point Plant was contaminated with VOCs.) After 12 days, the Holcomb Boulevard Plant was flushed and cleaned of diesel fuel and the put back on line. During the 12 days that the Holcomb Boulevard Distribution system was connected to the Hadnot Point Water Treatment Plant, residents of the Paradise Point, Watkins Village, Berkeley Manor and Midway Park housing areas were potentially exposed to VOC contamination. All wells found to contain the solvents within the Hadnot Point system were closed by February 1985.

[Note: The Holcomb Boulevard Water Distribution System was not constructed until the early 1970's. Prior to this time, family housing areas currently served by the Holcomb Boulevard system (including Paradise Point, Watkins Village and Berkeley Manor) were served by the Hadnot Point Water Distribution System. Accordingly, if the Hadnot Point system was contaminated in the early 1970s, it is possible that residents of the above referenced family housing areas may have been exposed to VOC contamination for a duration longer than 12 days.]

To date, the following cleanup actions have been taken to remediate the groundwater:

- Preliminary Assessment
- Site Inspection
- Soil Excavation
- Remedial Investigation
- Feasibility Study
- Human Health Risk Assessment
- Record of Decision
- Remedial Design
- Remedial Action

The groundwater is currently being remediated by various pump and treat ground water remediation systems.

The Holcomb Boulevard Water Distribution diesel generator's underground storage tank site is currently being remediated under the Underground Storage Tank Program through the use of an air sparging/soil vapor extraction system.

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In 1983, MCB Camp Lejeune conducted an initial assessment of potentially contaminated areas aboard the Base. Based on this assessment, MCB Camp Lejeune was listed on the EPA NPL in Oct 1989 and entered into a Federal Facilities Agreement with EPA Region IV, and the North Carolina Department of Environmental and Natural Resources in 1991. Since that time, MCB Camp Lejeune continues to conduct environmental investigations and cleanups pursuant to the Department of the Navy Installation Restoration Program. A complete history of actions taken at Camp Lejeune under the Installation Restoration Program is located in their Administrative Record that can be viewed at <http://www.bakerenv.com/camplejeune/>.

MCB Camp Lejeune has a strong Installation Restoration Program and continues to work to restore and improve environmental conditions at the base. They actively involve the public through meetings with their Restoration Advisory Board (RAB). As needed, they hold public availability sessions and distribute factsheets to keep the public informed on environmental conditions. They partner with federal and state environmental regulatory agencies, remedial contracting firms, and other technical experts to ensure the most effective and economical cleanup techniques are implemented. They also have environmental information available on their web site mentioned above.

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Question: Have any claims been made by military personnel/dependents/retirees claiming some harm from the water?

Answer: As of 5 September 2000, 17 Federal Tort Claims Act claims related to past drinking water contamination at MCB Camp Lejeune have been filed with the Office of the Judge Advocate General of the Navy, Claims, Investigations and Tort Litigation Branch. Eleven of the claims allege adverse health effects relating to a child conceived or born at MCB Camp Lejeune. The remaining six claims are on behalf of adults claiming adverse health effects due to exposure to contaminated drinking water while stationed or living at MCB Camp Lejeune. Three of the claims filed by adults seeking compensation for alleged adverse health effects were denied under Feres v. United States, 340 U.S. 135 (1950). The "Feres doctrine" bars Federal Tort Claims Act claims brought by current or former service members alleging injuries that occurred incident to their active duty service. These claimants were on active duty in the U.S. Marine Corps when they lived at MCB Camp Lejeune and thus are ineligible to file a claim. However, the "Feres doctrine" does not affect any other military or veterans benefits to which a service member may be entitled. The remaining fourteen claims are under consideration.

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Question:

- (1) What studies have been done?
 - (a) Who did the studies?
 - (b) Are copies available for release?

Answer: The following health studies have been conducted at Marine Corps Base Camp Lejeune, North Carolina:

(1) Agency for Toxic Substances and Disease Registry Public Health Assessment. U.S. Marine Corps Camp Lejeune, Onslow County, North Carolina, 4 August 1997.

(a) Conducted and prepared by: The U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substance and Disease Registry.

(b) The PHA can be viewed/printed from the following web site:
http://www.atsdr.cdc.gov/HAC/PHA/usmclejeune/clej_toc.html.

(2) Volatile Organic Compounds in Drinking Water and Adverse Pregnancy Outcomes. U.S. Marine Corps Base, Camp Lejeune, North Carolina, August 1998. (NTIS Publication #PB98-156540).

(a) Conducted and prepared by: The U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substance and Disease Registry.

(b) Copies of the report can be obtained from the National Technical Information Service (NTIS), Springfield, Virginia (1-800-553-6847). The report is not currently available on the internet.

Question: What did the studies reveal?

The Public Health Assessment (PHA) at Marine Corps Base Camp Lejeune was conducted by ATSDR, as required by Section 104(i)(6) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended (42 U.S.C. Section 9604(i)(6)). The purpose of the PHA is to evaluate potential public health impacts that may have resulted from possible exposures to environmental conditions at MCB Camp Lejeune. The PHA for MCB Camp Lejeune was initiated in 1991 and was finalized in 1997. Based on preliminary findings in the PHA, in 1995 ATSDR initiated data collection for a separate study to look at VOCs in drinking water and birth outcomes. They published an interim report of the study's findings prior to completing the PHA. Therefore the conclusions below were reached in both the PHA and the "Volatile Organic Compounds in Drinking Water and Adverse Pregnancy Outcome" reports.

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- There is not an increased risk of cancerous or noncancerous health effects in adults based on the estimated exposure levels to VOCs.
- ATSDR determined that cancerous health effects are unlikely in children; however, they did not feel that enough scientific information was available to rule out the possibility of cancerous health effects from exposure to low-dose exposure to VOCs. They also noted that fetuses, which were not evaluated, are potentially more sensitive than children to VOCs.
- Both studies concluded that there could be an association between exposure to VOCs in drinking water and adverse pregnancy outcomes. The potential associations noted were: (1) decreased mean birth-weight and an increase in small for gestational age in infants born to mothers over age 35 and (2) a strong association between long term exposure and decreased mean birth weight and increased small gestational age in male infants. However, due to small numbers in the exposed groups, ATSDR warned the results need cautious interpretation. Additionally, ATSDR did not account for confounding factors such as smoking.

Based on these studies, ATSDR recommended that a more in depth study be conducted using a larger study group. The survey currently being conducted by ATSDR is in support of this in-depth study.

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