

PA PLAN: PROPOSED CAMP LEJEUNE PUBLIC HEALTH STUDY

4 Oct 99

BACKGROUND:

1. In 1980 unregulated volatile organic compounds (VOCs) were found in the water distribution system at Hadnot Point. VOC's were discovered at Tarawa Terrace in July 1982. Through an on-going study to identify and confirm contamination on Camp Lejeune, the source of these compounds was determined to be coming from several supply wells. It was subsequently discovered that the VOCs in supply wells in Tarawa Terrace were originating from an off-Base dry cleaning facility. Another location on Base (in the Industrial area on Mainside) where VOCs were discovered originated from industrial use, storage, and disposal of solvents. As supply wells were identified and tested in 1984 - 1985, the affected wells were shut down.

2. In 1998 the Agency for Toxic Substances and Disease Registry (ATSDR-Part of Health and Human Services) completed a study titled "Volatile Organic Compounds in Drinking Water and Adverse Pregnancy Outcomes." While ATSDR noted that there may be an association between contaminated water and adverse pregnancy outcomes at Camp Lejeune, these findings were not conclusive. ATSDR concluded there was no association between exposure to PCE and TCE (VOC's) contaminated water and adverse pregnancy outcomes in certain groups. ATSDR did conclude an association between VOC contaminated water and adverse pregnancy outcomes in some other groups (eg, decreased mean birth weight and increased small for gestational age births in infants born to mothers over the age of 35), ATSDR qualified the associations and warned that the results needed to be interpreted with caution. Bottom line: ATSDR believed the questions over VOC exposure effects warranted further study.

3. The ATSDR has proposed a follow-on study to investigate whether there is any relationship between exposure to VOC-contaminated drinking water and incidence of childhood leukemia and other childhood birth defects at Camp Lejeune. The first step of this study is a locating project to find former residents of family housing to participate.

4. Beginning Friday, 17 Sept, the ATSDR will attempt to locate and contact approximately 12,500 personnel who lived in Camp Lejeune family housing from 1968-1985, and who also conceived or gave birth during that time, to determine the incidence of childhood health problems. They will be asked approximately 35 questions covering a

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broad selection of birth defects. This survey has the understandable potential to raise many questions.

5. The recent case control investigation in Woburn, MA that examined maternal exposure to drinking water from two municipal wells that were contaminated with VOCs, served as a catalyst for ATSDR in pursuing the Camp Lejeune study. The Woburn case is the subject of the current movie release "A Civil Action" and a recent PBS "Frontline" production.

6. ATSDR is funding the locating project, with OMB approval.

7. Our first media query on the issue was received from Dale Ream, TV-12 in Jacksonville, NC. He ran a three-part series on the issue during the week of March 1.

To date, CLNC PA has received about 15 phone calls from interested former residents.

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ASSESSMENT

1. Impact cannot be underestimated. **The number of those potentially affected by contact with VOC-contaminated water is in the thousands.** Local area residents will have some info on this issue, but those people receiving letters from ATSDR will be taken completely by surprise. Also, some residents may have knowledge of the VOCs in the water, but may not know of potential health risks (all they may know about it could be based on Ch 12's "Glasses of Poison" story).
2. ATSDR's efforts will raise many questions from all sides, ie, Marines, former Marines and their families, civilian workers and retirees, world-wide. Because the survey population is (at least potentially) world-wide, the issue has potential to gain interest from special interest groups and legislators.
3. Despite the fact that the target public lived at Camp Lejeune no more recently than 1985, the study may still result in heightened anxiety among current residents of base housing, especially TT. Natural skepticism and concern will fuel anxiety until they are educated.
4. Because there are many Federal and DoD agencies involved, it has been and will continue to be difficult to deliver consistent messages to the public. Coordination is key.

STRATEGY

1. We will be as open and forthright with our Marines, former Marines and their families as possible, along two axes of attack:
 - a. Convey Lejeune's role in the study (ie, provide background information)
 - b. Address concerns of current and former residents of Camp Lejeune housing.
2. We will release as much factual information about the issue as quickly as possible so that affected and interested people can make rational judgements based on the facts.
3. CPAO will take the lead on Lejeune specific queries. Queries about the location effort itself and conduct of the study will be forwarded to the National Opinion Research Center (NORC), the contractor performing the search and survey for ATSDR. Questions about epidemiological impacts of drinking VOC contaminated water, reasons for and methodology of the study, and mechanics of the location effort will be forwarded to ATSDR.

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CPAO will remain in close coordination with MFL PAO, DivPA, and ATSDR throughout.

COMMAND MESSAGES

1. There is no evidence at this time that any childhood illness can be linked to drinking water contamination at Camp Lejeune. It is too early to speculate what the data gathered in this locating effort may reveal.
2. We support ATSDR's study, and will continue to cooperate with ATSDR because their efforts affect the Marine Corps family. Hopefully, the study will add to the larger body of scientific knowledge.
3. The water supplies at Camp Lejeune are safe for drinking. We follow all laws and regulations in order to ensure the safety of not only our base housing residents, but of our own families as well.

QUESTIONS AND ANSWERS

Q1 What does the Marine Corps think of ATSDR's study?

A1 We support this study and will continue to cooperate with ATSDR because their effort affects the Marine Corps family, as well as the advancement of the scientific and medical community.

Q1a Will the results of this study be made public?

A1a Yes. ATSDR estimates they will be available by 2002.

Q2 How long has the Marine Corps known the wells were contaminated?

A2. In 1980, unregulated compounds (VOC's—TCE and PCE) were discovered in water serving Hadnot Point. In 1982, similar unregulated compounds were found in water serving Tarawa Terrace. At that time, Camp Lejeune was complying with all existing regulations regarding drinking water standards. In the mid-1980's, general public awareness of the affects of waste disposal on the environment increased, and laws were established to regulate disposal and direct clean-up of previously contaminated sites nation-wide.

Q3 Why is this just being made public now?

A3 The fact that drinking water was contaminated with VOCs was made public when it occurred in the 80's. The installation restoration process, which remediates or cleans up sites identified as having been contaminated, has been in place at Camp Lejeune since 1982. The ATSDR research has only recently brought to our attention the potential link between contaminated water and particular childhood illnesses.

Q4 Why did the Marine Corps wait until 1985 to turn off the wells? **CLW**

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A4 The compounds in question were not regulated by any Federal, State, or local entity at that time. However, engineers identified the fact that these particular compounds were present in the water supply and began to take measures to further investigate and deal with this contamination. Between November 1984 and February 1985, 12 wells serving Camp Lejeune were turned off. On 8 February 1985 the only well in Tarawa Terrace providing contaminated water for use was closed. Another well that had just been built was also closed, but it had never been put into production.

Q4a Why did it take 5 years to shut down the affected wells? What was done from the time these compounds were found in the water at Hadnot Point until the last well was shut down in Feb of 1985?

A4a

Q5 What is the process for turning off a well?

A5 Turning off a well involves turning off the electricity to the pump. Normally this is done through a "lock-out/tag-out" procedure where the electrical power switch is physically locked in the off position. A tag is then placed on the lock describing the circumstances for the lock-out.

Closing or properly abandoning a well is the process whereby a well house is demolished, the pump and associated electrical and plumbing assemblies are removed, and the well casing pulled out of the ground and/or filled with an approved material to prevent interaquifer contamination through migration of pollutants via the borehole conduit.

Q5a How are the affected wells at Camp Lejeune being/have been cleaned up/remediated?

Q5a

Q6 What has been done regarding ABC Cleaners?

A6 The Environmental Protection Agency, through the Superfund program, has been working with ABC cleaners to clean up the contamination for which they are responsible. The Marine Corps continues to provide technical and administrative assistance as necessary to the EPA in order to help them accomplish remediation and cleanup.

Additionally, Camp Lejeune has provided a location aboard the Base for the EPA to build and operate the remedial system for the contaminated groundwater originating from ABC Cleaners. Mr. Luis Flores is the EPA POC. Mr. Flores works in the Atlanta office of the EPA, telephone 800-435-9233.

ABC Cleaners was notified by the NC State Department of the Environment and Natural Resources on 24 Jan 1986 that they were in violation of NC General statutes for disposal violating groundwater standards.

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Q7 Is the Marine Corps responsible for any of the contamination?

A7 Contamination in Tarawa Terrace was apparently not caused by the Marine Corps, but rather from an off-Base source. Contamination in the Hadnot Point water plant did affect wells located throughout the Industrial Area of the Base. Underground storage tanks in the industrial area leaked solvents and petroleum into the groundwater which were intercepted by the supply wells. The Marine Corps continues to comply with all local, State and Federal drinking water standards to ensure the water service to our housing areas is safe.

Q7a Have the contaminated storage tanks in the industrial area been cleaned up? How was that done?

Q7a

Q7b Are the compounds in question (TCE, PCE) still in use on Base?

A7b

Q7c What are the current standards regarding use/disposal of these compounds?

A7c

Q8 What types of things that the Marine Corps uses could have caused the contamination?

A8 As far as we have been able to determine, all VOC contamination (tetrachloroethylene, which is a dry cleaning solvent) in the supply wells at Tarawa Terrace originated from off-Base dry cleaning operations. At Hadnot Point there were several underground storage tanks in the Industrial Area that leaked VOCs (trichloroethylene and tetrachloroethylene, which are metal degreasers and solvents) and petroleum into the groundwater. Additionally, common past disposal practice of solvents further contaminated the groundwater in the Hadnot Point area.

Q9 Who can people call for information?

A9 If you have questions about the study itself you may contact the National Opinion Research Center at 1 800 639 4270, or ATSDR at 1 888-42-ATSDR. If you have questions about Camp Lejeune you may call Camp Lejeune Public Affairs toll free at 1 877 261 9782 or commercial (910) 451-7413, DSN 751-7413.

Q10 Are there problems at any other Marine Corps bases?

A10 Marine Corps bases nationwide routinely test drinking water to ensure compliance with all drinking water standards and regulations. There is no evidence that contamination of drinking water similar to that at Camp Lejeune has occurred in the past at any other Marine Corp

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location. (refer to DivPA for further information, POC 1stLt Courtney Wyckoff).

Q11 But isn't it possible that similar activities at other Marine Corps bases could have resulted in similar contamination?

A11 There is no evidence at this time that that is the case; anything beyond that is speculation.

Q12 What are you going to do if the study finds that children suffered illnesses as a result of drinking water at Camp Lejeune?

A12 We are supporting ATSDR in their effort to locate people who lived in Camp Lejeune family housing from 1968-1985 and who also conceived or gave birth during that time. While ATSDR stated its conclusions concerning associations between VOC exposure and adverse pregnancy outcomes have to be interpreted cautiously, we are certainly interested in finding out whether there is any relationship between any VOC exposure and any incidence of leukemia/birth defects in children born to parents who lived at Camp Lejeune. Until the locating effort is complete, it will not be determined whether sufficient evidence exists to investigate and study it further. If ATSDR determines that further study is necessary, the we will support them in that effort.

Q13 What kind of standards are in place now to ensure that water supplies in base housing are safe?

A13 In accordance with Federal and State regulations, all supply wells are tested annually . Additionally, Camp Lejeune has undertaken a proactive program to test all supply wells within 1000' of known hazardous waste sites semi-annually (twice-a-year). It should be noted that there are NO State or Federal requirements for semi-annual sampling. Water treatment plants previously were tested annually; however, after several consecutive sample events without detecting any contamination, the required testing interval was reduced to every three years by the State. The samples from the wells and the water treatment plants are analyzed for: organics (including VOCs), inorganics (metals), alkalinity, and turbidity, among others.

Q14 What does the Marine Corps hope to gain from this study?

A14 While the study and information gathered as a result are an ATSDR initiative, we are certainly interested in as much information as possible about whether there are any health effects of past drinking water contamination at Camp Lejeune.

Q15 What if people want to participate in the study but haven't been contacted?

A15 Contact the National Opinion Research Center at 1 800 639 4270 or the ATSDR at (404) 639 0501 or 5132, or 1 888-42-ATSDR.

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Q16 When will the study begin?

A16 Mailings to locate those who may be affected by this study began Friday, 17 Sept, 1999.

Q17 What about people who lived elsewhere on Camp Lejeune? Were they exposed to contaminated water?

A17 (See fact sheet and maps for more info)

On Jan 27, 1985, a generator fuel line at the Holcomb Blvd water distribution plant burst, leaking fuel into the system. The system was immediately shut down and flushed out. Emergency back-up water was then pumped from the Hadnot Point system in the Holcomb Blvd distribution system lines. At the time, TCE and DCE were found in the water. The system was switched back 12 days later after the generator fuel line was repaired. Thus, for about two weeks, it is possible that people in _____ came into contact with VOC contaminated water.

Q17a Why was water from the Hadnot Point system, which you knew had been contaminated as early as 1980, pumped into the Holcomb Blvd system?

A17a

Q18 What is the Marine Corps contributing to the study?

A18 ATSDR is actually conducting the locating effort and will conduct any follow-on studies. However, the Marine Corps is supporting ATSDR in whatever ways we can to facilitate the process. The Marine Corps, as part of DoD, collaborates with the ATSDR to conduct a variety of public health activities at federal facilities.

Q19 What is the current method for testing the drinking water at Camp Lejeune? How can people be assured of the safety of the water supply?

A19 All supply wells and water treatment plants are tested according to Federal and State requirements. Additionally, all supply wells within 1000' of known hazardous waste sites are proactively tested semi-annually (twice-a-year). In accordance with the Safe Drinking Water Act of 1974 and its many amendments, as well as State requirements, Camp Lejeune complies with all regulations concerning the testing of its drinking water. All supply wells on Camp Lejeune are sampled annually and any supply well located within 1000' of a known hazardous waste site is sampled semi-annually. This semi-annual sampling is a proactive measure being undertaken by Camp Lejeune without regulatory requirement. All samples are analyzed for VOCs, inorganic compounds, radionuclide, and bacteriological contaminants. The analytical process involves Gas Chromatography / Mass Spectrograph (GC/MS), Atomic Absorption, as well as numerous other processes and methods.

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Additionally, the finished water from the water treatment plants is sampled every three years. Prior to 1995, all water treatment plants were tested annually; however, after several consecutive sample events without detecting any contamination, the required testing interval was reduced to every three years by the State. Base Utilities and Environmental Management personnel, as well as contractors take samples, while the analyses are typically done by contract laboratories who provide all results directly to the State.

Q20 Does the Marine Corps have any liability for any link that may be revealed between the water at Camp Lejeune and childhood illness?

A20 ATSDR is currently conducting a locating effort in order to gather enough data to determine whether a follow-on study is warranted. There is no conclusive evidence at this time that any childhood illness can be linked to drinking water contamination at Camp Lejeune. It is too early to speculate what the data may reveal and certainly too early to speculate who may be liable, if anyone.

Q20a Who can my attorney contact?

A20a Attorneys may contact the Base Staff Judge Advocate's office at (910) 451-2321. For information on claims against the government, contact:

Department of the Navy
Office of the Judge Advocate General
Washington Navy Yard, Bldg 33
1322 Patterson Ave SE Suite 3000
Washington DC, 20374-5066
ATTN: Code 35, LT Riechel
(202) 685-4600

Q21 Why aren't you looking for people who lived at Camp Lejeune prior to 1968?

A21 The target group was determined by ATSDR. Questions about their specific methodology should be referred to them. NOTE: computerization of birth records began in 1968.

Q22 Why was Camp Lejeune chosen?

A22 Camp Lejeune was not chosen due to a specific health concern among current or former residents of Camp Lejeune. ATSDR can best explain why Camp Lejeune, among the many sites in the U.S. potentially exposed to similar compounds, was chosen for this study.

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