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POISONED PATRIOTS: CONTAMINATED DRINKING WATER AT CAMP LEJUENE

HEARING
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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POISONED PATRIOTS: CONTAMINATED DRINKING WATER AT CAMP LEJUENE

TUESDAY, JUNE 12, 2007

House of Representatives,
Subcommittee on Oversight
and Investigations,
Committee on Energy and Commerce,
Washington, DC.

The subcommittee met, pursuant to call, at 10:04 a.m., in
room 2322, Rayburn House Office Building, Hon. Bart Stupak
(chairman) presiding.

Present: Representatives Inslee, Solis, Dingell, Whitfield,
Walden, and Burgess.

Staff present: John Sopko, John Arlington, Joanne Royce,
Scott Schloegel, Kyle Chapman, Alan Slobodin, Dwight Cates, and
Matthew Johnson.

OPENING STATEMENT OF HON. BART STUPAK, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF MICHIGAN

Mr. Stupak. The subcommittee will come to order.

Today we have a hearing entitled "Poisoned Patriots:
Contaminated Drinking Water At Camp Lejeune." Each Member will
be recognized for a 5-minute opening statement. I will begin.

This is the first in a series of hearings this committee
will be holding to examine whether the Pentagon is adequately
protecting the American people, including military personnel
and their families, from risks associated with environmental
contamination at its facilities. In this hearing we will
explore the tragic narrative of why tens of thousands of
Marines and their families were exposed to highly contaminated
drinking water at Marine Corps Base Camp Lejeune for nearly 30
years.

Three years ago this committee heard testimony from Jerry
Ensminger, a 24-year-old Marine Corps veteran, who raised
serious questions about why both the Department of the Navy and
the Marine Corps waited 5 years before notifying Camp Lejeune
residents that the drinking water was highly contaminated. Mr.
Ensminger also raised questions about whether the Navy and
Marine Corps were cooperating with the Agency for Toxic
Substances and Disease Registry, ATSDR, which has been engaged
for the last 8 years in studying the connection between
exposure to contaminated drinking water at Camp Lejeune and the
increased instance of cancer and birth defects of children at
the base.

Over 20 years after the Marine Corps finally took the
contaminated wells out of service, these and countless other
questions remain unanswered or inadequately addressed.

The purpose of this hearing today is to get some answers.

When did the Marine Corps learn that the drinking water at
Camp Lejeune, a military base, nearly 100,000 residents were
contaminated with dangerous chemicals?

If the contamination was first discovered in 1980, why did
the Marine Corps wait until 1985 before it closed its wells?

Why were the closed wells not immediately capped and
abandoned, but continued to be used to supply water at various
times up to and through 1987?

When and how were the residents told about the
contamination?

Was the notification adequate?

Did exposure to drinking water cause cancer and birth defects in children conceived at the base? What about adults who drank the water?

How has the Marine Corps responded to those affected? Has it taken care of its own? Has the Marine Corps continued with Semper Fidelis, or always faithful?

Why is the ATSDR study taking so long? Will the study be published as scheduled by December 2007? Has the military intentionally delayed the study?

Today we welcome back Mr. Ensminger who knows firsthand the horrible consequences of the military's failure to detect and clean up the toxic drinking water at Camp Lejeune. His daughter Jane was born in 1976 at Camp Lejeune; 6\1/2\ years later she was diagnosed with leukemia. Jane died when she was 9 years old in 1985, the same year that the poisoned wells were first shut down.

Mr. Ensminger is joined on the first panel by Michael Gros and Jeff Byron who likewise painfully know only too well the devastation caused by exposure to the poisoned drinking water at Camp Lejeune.

Jeff Byron, a former air traffic controller, moved his family into base housing at Camp Lejeune in 1982, 3 months after his first daughter Andrea was born, and 2 years before Rachel was born. Rachel is developmentally disabled, has spina bifida, and was born with a cleft palate. Andrea has a rare bone disease known as aplastic anemia.

Dr. Michael Gros, a Navy obstetrician at the time at Camp Lejeune, contracted T-cell lymphoma and can no longer practice medicine. Dr. Gros spent his entire time in the Marine Corps at Camp Lejeune and he and his family lived in base housing.

We are deeply grateful to these three witnesses for coming forward to share their painful stories with our committee.

We will also hear from officials at the Agency for Toxic Substance and Disease Registry, ATSDR, about the study initiated in 1999 which examines whether individuals born between 1968 and 1985 to mothers who drank contaminated water while they were pregnant and living at Camp Lejeune are at increased risk of developing certain childhood cancers and/or birth defects. We will hear whether the Department of the Navy and the Marine Corps have been forthcoming in their efforts to assist ATSDR in this critical study. We also hope to learn why the Department of the Navy was resistant to funding the ATSDR study despite a Federal statute requiring that it do so. Why did DoD refuse to fund ATSDR activities at Camp Lejeune for 3-4 years from 1998 through 2000? Did military obstruction and lack of funding delay completion of the study? More importantly, does ATSDR have accurate information on which to base its study? Why aren't all the Marines and their families who were exposed to this contaminated water included in the study?

The principal contaminant of the drinking water at Camp Lejeune was a volatile organic compound referred to as TCE, or trichloroethylene. TCE, a volatile organic compound, is an industrial cleaning solvent widely used in defense and commercial and industrial applications. TCE is the most widespread water contaminant in the Nation, and almost every major military base has a Superfund site with TCE contamination.

TCE was also the main contaminant at the Woburn, Massachusetts Superfund site made famous by the best selling book, A Civil Action. That book and the movie based on it illustrated very well the horrible toll that TCE can take on the human body. But here is an important frame of reference. As bad as the contamination was at Woburn, the concentrations of TCE at Camp Lejeune were as much as 10 to 15 times higher.

We have a chart. Here is what EPA has proposed. There is a current standard, 5 parts per billion; Woburn is 267; Hadnot, which is one of the wells, was 3,400. In Hadnot on February 7, 1985, over 18,000 parts per billion in the water.

In 2001, EPA attempted to issue a risk assessment that found TCE to be at least twice as carcinogenic as originally thought, and possibly 40 times as carcinogenic. The Defense Department aggressively opposed the EPA's finding, labeling it "junk science" and sided with the White House to derail issuance of the tough new TCE standard. Instead, the issue was referred for study by the National Academy of Sciences, delaying for years any conclusions about whether millions of Americans, including the residents at Camp Lejeune, were contaminated by TCE. The EPA standard was vindicated and accepted a year ago by the National Academy of Sciences.

Nevertheless, this obstruction of environmental prerogative has been the modus operandi of the Defense Department for years now, since at least 2001. The Pentagon has sidetracked environmental regulations, opposed EPA efforts to set strict reclusion limits, stalled and underfunded cleanups and ignored Federal and State environmental regulators. Moreover, every year, right up through 2006, the Defense Department has sought to exempt itself from environmental laws.

Those days are over. Nearly 1 out of 10 Americans live within 10 miles of a military site listed on the Superfund National Priority List for hazardous waste cleanup. The American people, military and civilian alike, deserve to work and live in communities where drinking water is safe and the air they are breathing does not threaten their lives.

I next turn to my friend from Kentucky, Ranking Member of the subcommittee, Mr. Whitfield, for an opening statement, please.

OPENING STATEMENT OF HON. ED WHITFIELD, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. Whitfield. Chairman Stupak, thank you very much. And we thank you for holding this important hearing. For many years, Congress has demanded answers about drinking water contamination at Camp Lejeune, and today we will get an update on what we've learned in that study. In particular, we look forward to the testimony from the Government Accountability Office that will detail the findings of its May 2007 report on Camp Lejeune. Congress mandated this study in the 2005 Defense Authorization Act.

Just last year Congress passed several legislative provisions relating to Camp Lejeune. Section 318 of the 2007 Defense Authorization Act requires the National Academy of Sciences to conduct a comprehensive review and evaluation of the available scientific and medical evidence regarding associations between prenatal, child, and adult exposure to drinking water contaminated with trichloroethylene, TCE, and PCE, perchloroethylene at Camp Lejeune. This comprehensive study will expand on the Agency for Toxic Substances and Disease Registry's ongoing study at Camp Lejeune.

The 2007 defense bill also requires the Marine Corps to notify Camp Lejeune residents and employees who may have been exposed to contaminated drinking water of the results of the ATSDR study. Congress wants to know the facts and we want to provide that information to our service members and their families.

Last week, Ranking Member Barton and I sent a letter to ATSDR requesting information on exposures to contaminated drinking water at 22 other military facilities. Committee staff identified these facilities based on a search of contamination records in ATSDR databases. At several facilities the level of TCE contamination in drinking water is comparable to levels found at Camp Lejeune. For instance, McClellan Air Force Base in California and the Wurtsmith Air Force Base in Michigan each had extensive TCE contamination in drinking water at levels of public health concern. In its public health assessment of the Wurtsmith Air Force Base, ATSDR concluded past exposure to groundwater may have posed an increased risk of developing adverse health effects. ATSDR assumes tap water was contaminated with TCE at 1,100 parts per billion between 1962 and 1977. Unfortunately, no one has investigated this matter, and we don't know the real extent of exposure or whether any adverse health effects occurred. We need to have these questions answered.

In response to our letter, ATSDR has provided a list of nine military bases where past exposures to TCE and PCE were considered a public health hazard. Mr. Chairman, I hope that we can use this list as a starting point to conduct more oversight at these facilities. The military personnel at these sites deserve to know if they were exposed to contaminated drinking water and what the potential public health implications are for them and their families.

Drinking water contaminated with TCE and other volatile organic compounds is not just a problem at military facilities. In my own district, the Paducah Gaseous Diffusion Plant has extensive groundwater contamination, including several contaminated residential drinking water wells. Fortunately, relatively few residents were exposed to the contaminated drinking water and detailed information on health impacts is available from independent research conducted by the University

of Cincinnati.

Today we are also releasing information regarding TCE contamination at several municipal and private sites. According to ATSDR the Sol Lynn Industrial Transformer Site in Houston, Texas, had tap water with TCE concentrations of 953,000 parts per billion. The Barnhart site in Illinois had tap water with TCE concentrations of 730 parts per billion. Further, the San Fernando Valley aquifer in North Hollywood, California, had TCE concentrations as high as 18,000 parts per billion. Unfortunately, little is known about the possible health impacts of the 800,000 residents of Los Angeles, Burbank, and Glendale who drank water from this contaminated aquifer for years. These sites also deserve our attention.

Mr. Chairman, the more we learn about this problem, the more we believe we may actually need to craft legislation to ensure that professional public health officials can help find the answers to these concerns. And I know I look forward to working with you on whether or not we need to identify whether ATSDR and other health agencies need more authority and more funding to investigate past exposures to TCE and other volatile organic compounds.

And, Mr. Chairman, I ask unanimous consent that an opening statement of the ranking member, Mr. Barton, be inserted into the record. He is unable to be with us. And then also the letter that I referred to that we wrote to ATSDR about these other sites, and the records that they provided to us about the contamination at the other sites. I would ask consent that we will enter those into the record.

Mr. Stupak, without objection, the opening statement of Ranking Member Joe Barton will be entered into the record, and also the June 6, 2007 letter to you and Mr. Barton with attachments will also be part of the record as well as any other statements by members for the record.

[The prepared statements of Mr. Barton and Mr. Green follow:]

Prepared Statement of Hon. Joe Barton, a Representative in Congress
from the State of Texas

I thank the chairman for holding this hearing. This problem at Camp Lejeune is hardly a new one, but it is important that we get to the bottom of why military personnel there were exposed to contaminated drinking water for so long. As early as 1980, significant contamination was discovered in the drinking water, but 5 years passed before the Navy finally identified the contaminated wells and shut them down.

I am not persuaded by the Navy's justification that they did not know the contamination was significant in 1980, or that the drinking water met regulatory requirements in place at that time. The fact is the contaminated wells should have been identified and shut down immediately. This is a simple matter of right and wrong. The delay may not have been criminal, but it was unmistakably immoral.

Stories conflict on why it took so long, and they involve a complicated series of events. Unfortunately, the committee staff has not had enough time to thoroughly investigate. The minority staff first learned of this hearing just 4 weeks ago, and the first briefing from the Navy occurred just 3 weeks ago. On important matters such as this, 3 weeks is simply not enough time to conduct serious, thoughtful oversight.

Fortunately for the subcommittee, several Federal agencies have devoted the time and energy necessary to fully review drinking water contamination at Camp Lejeune. Today we will hear from the Environmental Protection Agency, the Government Accountability Office, and the Agency for Toxic Substances and Disease Registry on their extensive research.

Camp Lejeune is the poster boy for contaminated drinking water on a military base, but it certainly is not the only one. I think we can anticipate learning of even worse problems at other bases. Last week, Representative Whitfield and I sent a letter to ATSDR to obtain information regarding extensive drinking water contamination at nearly two dozen military facilities.

Based on the data we have uncovered, some of these facilities likely had exposures in excess of what we know occurred at Camp Lejeune. Past contamination is also a problem at civilian municipal facilities, and we need answers on those facilities as well.

Mr. Chairman, we are prepared to dig into these issues. We have laid the groundwork for a serious investigation of

drinking water contamination at military and civilian facilities. I hope that we can work on a bipartisan basis. There is no reason why we shouldn't.

Prepared Statement of Hon. Gene Green, a Representative in Congress
from the State of Texas

Thank you, Mr. Chairman, for holding this hearing on contaminated drinking water at Camp Lejeune.

This hearing is the first in a series of hearings on contaminated drinking water on our military bases.

We ask our military personnel to protect and defend our country. It is my belief that we have a responsibility and an obligation to protect our military personnel and their families when they are living on military bases.

We know the chemicals TCE and PCE were contaminating at least eight sights in the water system in and around Camp Lejeune.

The exact date of contamination is unknown, but it seems that Camp Lejeune officials may have known about the TCE and PCE in the wells as early as 1980. They did not close the contaminated wells until 1985 and even reopened the wells periodically from 1985 until 1987.

TCE and PCE are clear and have no odor. For 7 years the military personnel and their families at Camp Lejeune were unknowingly bathing, drinking, and cooking with this contaminated water.

The EPA recommends contamination levels for TCE and PCE in drinking water at 5 parts per billion. Those living at Camp Lejeune were in some cases exposed to TCE and PCE levels over 1,000 parts per billion.

Camp Lejeune was declared a Superfund in 1989 and the DoD's remediation process has been ongoing since that time. The EPA expects the cleanup to be completed in 2011.

Currently, our office is wading through the process of having a toxic waste site in our district declared a Superfund. We are just beginning the process, but I certainly hope that it would not take some 18 years to clean up our site.

There are many unanswered questions surrounding the contaminated water at Camp Lejeune. I know many of us on the committee want to know why military personnel who may have been exposed to TCE and PCE while living at Camp Lejeune still have not been notified of their potential health risks. It seems to me that Camp Lejeune is an example of how we failed to responsibly protect our troops and their families. This hearing is an opportunity to shed some light on the unresolved issues at Camp Lejeune.

Thank you Mr. Chairman, I yield back my time.

Mr. Whitfield. I think you and your staff were given copies of those, and thank you very much, Mr. Chairman. My time has expired.

Mr. Stupak. I know there's a Health Subcommittee going on so, Mr. Walden, you will be next then.

Mr. Walden. Thank you very much Mr. Chairman. I am going to waive an opening statement. I would like to hear from the witnesses. I will have comments to make during expanded Q&A.

Mr. Stupak. Mr. Burgess, you are welcome to make an opening statement.

Mr. Burgess. Thank you, Mr. Chairman. I too will waive an opening statement. I would just respectfully suggest there's probably more sites than the one we have under discussion today, and perhaps this committee could gently urge the Department of Defense to use the money appropriated to clean up the sites around the country for which cleanup has already been authorized.

I will yield back the balance of my time.

Mr. Stupak. Very good. That concludes all the opening statements of members. Other members may be coming. We will allow them an opening statement if they so choose at the appropriate time. As I said there's a couple other hearings going on of the Energy and Commerce Committee. So that concludes the opening statements by members of the subcommittee.

I will call our first panel of witnesses to come forward. They are already here. Mr. Ensminger, Dr. Gros, and Mr. Byron. Gentlemen, it's the policy of this subcommittee to take all

testimony under oath. Please be advised that witnesses have the right to counsel to be present while they testify and be advised by counsel during testimony.

Do any of you wish to be represented by counsel today? No one indicating they are, so I will take that as a "no." and I'm going to ask you, would you please rise and raise your right hand to take the oath.

[Witnesses sworn.]

Mr. Stupak, let the record reflect the witnesses replied in the affirmative. You are now under oath. We will now go with opening statements from our witnesses. Let's start on my right.

Mr. Byron, if you would, please, sir, if you press that button in front of you to turn on your mike.

STATEMENT OF JEFF BYRON

Mr. Byron. Thank you. Good morning, my name is Jeff Byron. I served my country honorably in the United States Marine Corps from June 1981 to June 1985. I have been invited to give testimony here today on the events surrounding the toxic water contamination that occurred at Camp Lejeune Marine Corps Base. The contamination took place between the years 1957 through 1987. I am here to tell you of the negative impact that exposure to VOCs has had on my family's medical history, past and present.

After boot camp and air traffic controller school, I was assigned a permanent duty station at Marine Corps Air Station, New River, Jacksonville, North Carolina. The Air Station provides air support for Camp Lejeune. When we arrived in Jacksonville, I applied for base housing. None was available. It would be a 6-month wait, and therefore we lived out in town.

My oldest child Andrea was born in June 1982. Two months later our family moved to Midway Park base housing complex. Midway Park is directly across from the main gate at Camp Lejeune. In August 1983, renovation of Midway Park forced our family to move to other base housing. We were assigned quarters at 3114 Bougainville Drive and Tarawa Terrace base housing complex. During our stay in base housing, my daughter Andrea was seen by doctors at the Naval Hospital on Camp Lejeune 57 times in 30 months for such illnesses as rashes, urinary tract infections, yeast infections, and unexplained fevers. Most of the time the medical personnel on base did not have an explanation for her symptoms. We were told to give her tepid baths and children's Tylenol to reduce the fevers.

During this time my wife and I conceived our second child, Rachel. She was born April 27, 1985, 6 weeks prior to my discharge from active duty. On her initial newborn profile from Onslow Memorial Hospital, there were no abnormalities listed. But when we took her to the base hospital for her first newborn checkup, the hospital officials noted the following medical concerns: She had slow weight gain, a heart murmur, a double ear infection, umbilical hernia, brachial dimples and posteriorly rotated ears, a large hemangioma--which is a birthmark--on her lower back, and what they listed as ASD. I'm not sure what that is.

It was also noted to speak to a pediatrician as soon as we arrive home and shows that the patient is leaving in 4 days and may need an EKG, a CRR, and a cardiac referral. She had to be fed in an infant seat because of projectile vomiting. She was labeled "a failure to thrive baby." Two weeks later, June 25, 1985, I was discharged from Active Duty service from the United States Marine Corps.

Six months after being discharged from the Marine Corps, Andrea, our first born, was diagnosed with a rare bone marrow disorder called aplastic anemia. Andrea was treated at Cincinnati Children's Hospital Medical Center, which at the time was considered the No. 2 hematology department in the country. The head of the hematology department asked us: What chemicals have you been exposed to? Our answer was none. They asked us for all the names of cleaning and hygiene products that we used. All of the products were ruled out. Andrea was in the hospital under quarantine for 30 days. Andrea was given blood and platelet transfusions. She was treated at Children's Hospital until she was 12 years old.

Can you imagine, I had my oldest daughter in the hospital with a bone marrow disease, under quarantine, while my youngest daughter was seeing multiple medical specialists for birth defects, and my wife, 6 months pregnant with twin boys. I don't know how we did it.

Andrea's aplastic anemia is in remission now, but her

doctors have told her there is a 50 percent chance the disease could return if Andrea decides to have children of her own.

It was 15 years after my discharge, May 27, 2000, when we received a letter from the National Opinion Research Center, who was contracted on behalf of the Department of Health and Human Services to do the survey and contact people that lived at Marine Corps Base Camp Lejeune. They were requesting that our family participate in a survey concerning toxic water contamination, specifically those children who were in utero and born while residing in base housing, Tarawa Terrace, Hadnot Point. They requested that our youngest daughter Rachel participate in a survey.

When the survey results came out, we were shocked to find out our daughter was not identified as a study participant since her documented medical records confirmed that she had two of the births defects of interest: cleft palate and spina bifida.

After we confronted ATSDR officials about her medical records which we had provided previously to them, they agreed that she had one of the birth defects of interest and therefore qualified as a study participant. It was quite clear to me after reading questions that were part of the survey that the Marine Corps had been aware of this situation for a very long time. From documents we obtained through the Freedom of Information Act request, we were able to determine that Marine Corps/DoD environmental personnel on base were well aware of the VOC contamination before our family moved into base housing, and therefore could have intervened and prevented the adverse health effects suffered by my family as well as other families whose medical history is similar to my own.

It was supposedly a notice to the residents of Tarawa Terrace that was distributed by the base commander in April 1985 that showed the base officials were more concerned with water usage than informing the residents of the risk of drinking, bathing, and cooking with contaminated water. The GAO report on page 29 does not reflect this point because they have not presented the document in its entirety.

The Marine Corps was morally responsible for providing clean, potable water, no matter who the contaminator was, especially after the contamination was discovered. According to the GAO report, GAO repeats over and over that Headquarters Marine Corps, DoD, and Marine Corps Base Camp Lejeune officials took no action.

Our family had already scheduled a vacation in North Carolina in 2000. We wanted to show our daughters where they were born. While we were in Jacksonville we went to Onslow Memorial Hospital to request copies of our daughters' birth records. We were very surprised to find out that all records were destroyed after 7 years. We then went to ABC 1-hour dry cleaners, which was a primary source of contamination from PCE at Tarawa Terrace base housing.

I took my 35 millimeter camera and took pictures of the facility that cost taxpayers \$4.3 million to clean up. After the film had been developed, it was apparent that safe operating procedures were not in place. There was also a Marine Corps warehouse across the street and base housing that had several blue barrels surrounding the brick structure. On subsequent visits to Camp Lejeune, these barrels were no longer visible.

I would like to thank the Oversight and Investigation Subcommittee personnel for inviting me to give testimony here today. And I would like to thank the members of the House Energy and Commerce Committee for hearing my testimony. I would like to especially thank the former residents of Marine Corps Base Camp Lejeune for being here.

Thank you very much. That's my statement.

Mr. Stupak. Thank you Mr. Byron.

[The prepared statement of Mr. Byron follows:]

Statement of Jeff Byron

Good morning. My name is Jeff Byron. I served my country honorably in the United States Marine Corps from June 1981 through June 1985. I have been invited to give testimony here today on the events surrounding the toxic water contamination that occurred at Marine Corps Base, Camp Lejeune. The contamination took place between the years 1957 through 1987. I am here to tell you of the negative impact that exposure to VOCs has had on my family's medical history, past and present.

After boot camp and Air Traffic Controller school I was

assigned a permanent duty station at Marine Corps Air Station, New River, Jacksonville, North Carolina. The Air Station provides air support for Camp Lejeune. When we arrived in Jacksonville I applied for base housing. None was available, it would be a 6-month wait, and therefore we lived out in town. My oldest child, Andrea, was born in June of 1982. Two months later our family moved to Midway Park base housing complex. Midway Park is directly across from the main gate of Camp Lejeune. In August of 1983 renovation of Midway Park forced our family to move to other base housing. We were assigned quarters at 3114 Bougainville Drive in Tarawa Terrace base housing complex. During our stay in base housing my daughter, Andrea, was seen by doctors at the Naval Hospital on Camp Lejeune 57 times in 30 months for such illnesses as rashes, urinary tract infections, yeast infections and unexplained fevers. Most of the time the medical personnel on base did not have an explanation for her

symptoms. We were told to give her tepid baths and children's Tylenol to reduce the fevers. During this time my wife and I conceived our second child, Rachel. She was born April 27, 1985, 6 weeks prior to my discharge from active duty.

On her initial newborn profile from Onslow Memorial Hospital there were no abnormalities listed. But when we took her to the base hospital for her first new-born check, up the hospital officials noted the following medical concerns:

- Slow weight gain
- A heart murmur
- Double ear infection
- Umbilical hernia
- Brachial dimples and posteriorly rotated ears
- A large hemangioma (raised birthmark) on her lower back
- ASD

It was noted ``Speak to pediatrician as soon as arrive home-are leaving in 4 days-may need EKG, CRR & cardiac referral". She had to be fed in an infant seat because of projectile vomiting. She was labeled ``a failure to thrive baby". Two weeks later, June 25, 1985, I was discharged from active duty service from the Marine Corps.

Six months after being discharged from the Corps, Andrea, our first born, was diagnosed with a rare bone marrow disorder called aplastic anemia. Andrea

was treated at CCHMC (Cincinnati Children's Hospital Medical Center), which at that time was considered the #2 hematology department in the country. The head of the hematology department asked us what chemicals we had been exposed to, our answer, none. They asked us for all of the names of cleaning and hygiene products that we were using. All of the products were ruled out. Andrea was in the hospital under quarantine for 30 days. Andrea was given blood and platelet transfusions. She was treated at Children's Hospital until she was 12 years old. Can you imagine, I had my oldest daughter in the hospital with a bone marrow disease, under quarantine. While my youngest daughter was seeing multiple medical specialist for birth defects, and my wife 6 months pregnant with twin boys. I don't know how we did it. Andrea's aplastic anemia is in remission now, but her doctor has told her that there is a 50 percent chance the disease could return, if Andrea decides to have children of her own and becomes pregnant.

It was 15 years after my discharge, May 27, 2000 we received a letter from The National Opinion Research Center who was contracted on behalf of the Department of Health and Human Services to do a survey and contact people that lived at Marine Corps Base Camp Lejeune. They were requesting that our family participate in a survey concerning toxic water contamination, specifically those children who were in utero and born while residing in base housing, (Tarawa Terrace, Hadnot Point). They requested that our youngest daughter, Rachel, participate in the survey. When the survey results came out we were shocked to find out that our daughter was not identified as a study participant, since her documented medical records confirmed that she had two of the birth defects of interest, cleft pallet, and spina-bifida. After we confronted ATSDR officials with her medical records, which we had previously provided to them, they agreed that she had one birth defect of interest, and therefore qualified as a study participant. It was quite clear to me after reading questions that were part of the

survey, that the Marine Corps had been aware of this situation for a very long time. From documents that we obtained through the Freedom of Information Act requests, we were able to determine that the Marine Corps/DoD environmental personnel on base were well aware of the VOC contamination before our family moved into base housing. And therefore could have intervened and prevented the adverse health effects suffered by my family as well as other families, whose medical history is very similar to my own.

There was supposedly a Notice to the Residents of Tarawa Terrace, that was distributed by the base commander in April of 1985. That showed that base officials were more concerned with water usage than informing the residents of the risk of drinking, bathing, and cooking with contaminated water. (The GAO report page 29, does not reflect this point because they have not presented the document in its entirety) The Marine Corps was morally responsible for providing clean potable water, no matter who the contaminator was, especially after the contamination was discovered. According to the GAO report, GAO repeats over and over that Head Quarters Marine Corps/DoD, and MCBCL officials took no action .

Our family had already scheduled a vacation to North Carolina in 2000. We wanted to show our daughters where they were born. While we were in Jacksonville, we went to Onslow Memorial Hospital to request copies of our daughters' birth records; we were very surprised to find out that all records were destroyed after seven years. We then went by ABC 1 hour dry cleaner, which was the primary source of contamination from PCE at Tarawa Terrace base housing. I took my 35mm camera and took pictures of the facility that cost tax payers 4.3 million dollars to clean up. After the film had been developed it was apparent that safe operating procedures were not in place. There was also a Marine Corps well house across the street in base housing that had several blue barrels surrounding the brick structure. On subsequent visits to Camp Lejeune, these barrels were no longer visible.

To me it was apparent that the Marine Corps had known for 20 years, before they had decided to tell my family of the exposure. I felt that they had wronged my family and others that had served this country as patriots. It was quite obvious that "Semper Paratus", always faithful, did not apply to us. I was raised to believe that to get something done you had to do it yourself. That is what I and others are doing. Those of us that have become activists want to ensure that this American tragedy never happens again. I have attended all of the ATSDR meetings concerning Camp Lejeune with the exception of the Water Modeling Scientific Panel. I am a sitting member of the Community Assistance Panel with the ATSDR, tasked with evaluating the possibilities of doing further studies on children and adults exposed at Camp Lejeune. I accompanied Jerry Ensminger to the hill when he gave testimony to a subcommittee hearing for Energy & Commerce concerning DoD's request to obtain exemptions from environmental law. I am happy to say that with Jerry's testimony, DoD was denied exemption. I attended the Commandant's fact finding panel in Jacksonville, NC. where according to the GAO report (page 46) the panel made several findings criticizing Camp Lejeune and Department of the Navy. One said, "Communications to Camp Lejeune residents regarding drinking water contamination was not detailed enough to completely characterize the contamination found at the time of the well closures" Notice to Residents of Tarawa Terrace--from the base commander. In my opinion, misleading at best. We started a web site, The Few, The Proud, The Forgotten, www.tftptf.com, in an attempt to provide documented history to the former residents so that they can make informed decisions regarding their future. To educate the public and government officials, to the events surrounding toxic water exposures at Camp Lejeune.

Because of my involvement with ATSDR as a cap member the Government Accountability Office allowed me and others to read, and comment on a copy of their draft report, "Defense Health Care Activities Related to Past Drinking Water Contamination at Marine Corps Base Camp Lejeune". After reading the draft report I have come to the conclusion that the GAO had not done its homework and it had depended upon the Marine Corps Headquarter explanation of documentation, and did not check their source. A Marine Corps document providing the sampling result stated that ND meant "none detected." (page 28 1st note of the GAO report) The document that is being referred to, GAO has removed the column that shows the instrument's

detection limit. On this same document a zero at the end of one PCE reading was missing, miss leading the reader to think that the meter read 158 parts per billion, in reality the reading was 1580 parts per billion. This is just one deception that I have uncovered in the GAO report.

While ATSDR did not always receive requested funding and experienced delays in receiving information from DoD for its Camp Lejeune related work, ATSDR officials said this has not significantly delayed their work. This was stated no less than 5 times in the GAO report. When something is overstated, it tends not to be true. I was also shocked to find out that ATSDR had come up with 548 Comparison Individuals for the in-utero study group, from the same base! Even after ATSDR officials repeatedly told CAP members that to do a credible study they did not need to use individuals from Camp Lejeune. Since I am a member of the CAP I thought it might be important for me to know about this group. What happened to trust and transparency? I provided GAO with documents to refute many of their statements. When the final draft came out I was surprised to see that they had not listened to very much of what I had to say. They had written a biased report in defense of the DoD and Marine Corps. I will be happy to dispel the rest of the GAO report with Congress at the upcoming hearing.

Mr. Stupak. Dr. Gros.

STATEMENT OF MIKE GROS, M.D.

Dr. Gros. Good morning, Mr. Chairman, ladies and gentlemen of the committee. Thank you for inviting me to speak before you regarding the unfortunate water contamination issue which we have all heard about. My name is Michael L. Gros, M.D.

My involvement with this event spans the time period from July 1980 to July 1983 when I lived at H-57 MOQ and worked at the Naval Hospital as a staff Ob/Gyn physician. I provided in my written testimony a chronology of my dates of education and my qualifications.

I come before you as a representative of many individuals and families who were adversely affected over a 40-or-more-year time frame by contaminated water at Camp Lejeune. I am, unfortunately, well qualified by virtue of a harrowing and life-altering experience with non-Hodgkins lymphoma and its treatment involving a bone marrow transplant and the development of severe chronic graft versus host disease, from which I now suffer continuously.

My family and I moved to Camp Lejeune in July 1980 after finishing a Navy internship and residency at Naval Regional Medical Center in Portsmouth, Virginia. Ironically, we desired Camp Lejeune as a duty station, since it was stateside and, at the time, seemed safe for my family. Little did we know that quite the opposite was true. Unknown to us, Camp Lejeune had groundwater contamination, which we've discussed, with various organic chemicals such as trichloroethylene and perchloroethylene, among other chemicals, that may have originated as early as the 1950's. This was due to improper disposal of these agents used in machinery overhaul and improper location of wells in areas affected by seepage into the water table.

Our house at H-57 MOQ was supplied by the Hadnot Point water system. As noted in the table, acceptable levels of TCE are less than 5 parts per billion. Our house had 1,400 parts per billion and one well providing our water, and one well, number 651, had an astounding 18,900 parts per billion TCE when it was finally taken offline in 1985, 2 years after we left.

So, for all of our 3 years living at H-57, we were ingesting and inhaling this poisonous water and its vapor from showering and bathing. It's noted that the poisoning is even worse if the water is heated up because the materials volatilize easier than water boils. Our food and the baby formula and toddlers' Kool-Aid were mixed with the seemingly clean water.

This poisoning has no taste, it has no smell, and so it's undetectable by usual means. The cancerous effects do not appear until 10 to 15 years post-exposure, the so-called latency period which is noted in ATSDR's own documents. From 1980 onwards, Camp Lejeune's own documents revealed that routine water tests typically performed on chlorinated water systems looking for substances called trihalomethanes showed the presence of major contamination with other organic

chemicals which required further action. Levels of these contaminants were so high so as to preclude THM testing. No records of any further action on Camp Lejeune's part exist. In fact, this THM testing was simply again repeated in intervals with similar results and, again, a shocking lack of further clarification.

Where was Camp Lejeune's concern for the safety of its residents? The technology involved in finding these poisons was readily available, but was either neglected due to incompetence or deliberately not done for unknown reasons. It is incomprehensible that this happened. Who made such bad decisions? Why was this ghoulish experiment performed on our military volunteers and their families? Such a failure to follow up on abnormal tests in my profession would have caused me to lose my medical license and, at best, face a malpractice suit I was sure to lose.

I'm sorry that I think like a doctor, but I feel people in charge of the welfare of others, such as managers of public water systems, should be held to standards of conduct commensurate with the serious nature of their jobs.

In spite of multiple handwritten warning notes on repeated test reports over several years' period of time, the advice of the base's outside water consultants to further identify and quantitate the poisoning chemicals was repeatedly ignored. Amazingly, no tests were ever done in follow-up to identify the nature of these compounds or their sources.

Even more incredible was the Marine Corps's attempt to later justify this gross neglect with the tack that no law existed requiring them to exercise the normal good judgment and caring that any other contemporary water supplier would have had for its customers. For example, the well 651 was not taken offline until 1985, 2 years after we left Camp Lejeune. Were we all unwitting lab rats? Such chemicals such as TCE and PCE are undetectable by usual taste and smell. So when we left active duty for Houston, Texas, in 1983, I was completely unaware that we had been systematically, unethically, and heartlessly poisoned during 3 years of living at Camp Lejeune.

I began a private practice of Ob/Gyn in Houston, Texas. Although I felt well, I began to show subtle lab abnormalities as early as 1993 and 1994. Definitely by 1997 these lab tests showed a marked shift in my complete blood count with an elevation of a lymphocyte fraction. To make a long story short, from 10 to 15 years removed from living at Camp Lejeune I had developed a slowly progressive and untreatable non-Hodgkins lymphoma called cutaneous T-cell lymphoma. My only treatment option would eventually be a bone marrow transplant when the disease reached such a point that my resistance to infection would be so low I could no longer see patients.

As I was seeing patients one day in November 1999, I was contacted out of the blue by Marie Sochia from the Agency for Toxic Substances and Disease Registry. She informed me that my younger son, Tom, conceived and born at Camp Lejeune, was to be studied as part of an in utero study due to his chemical exposure. This was my first knowledge of any toxic water in my former base. It was then that I made the connection between my disease and the TCE and PCE exposure which I had suffered during 3 years of continuous exposure at Camp Lejeune. My son seemed fine. However, I had progressive lymphoma.

I was happy to know that an infant study was to be done, but I was shocked to learn that there were no studies planned and no studies were felt to be warranted on the thousands of adults who were similarly exposed. I vigorously dispute this conclusion.

In May 2002, my disease had progressed to the point where I had dangerously low immunity and the lymphoma was replacing 50 percent of my bone marrow. I had to abruptly abandon my practice and be admitted for the only remaining chance of a cure, which was a bone marrow transplant. As many of you know, this is not a walk in the park. BMT carries a significant mortality risk related to acute and long-term complications. Thankfully, the procedures rather quickly put the lymphoma in remission, but unfortunately has left me with severe chronic graft versus host disease. The quality of my life has really degenerated as a result. Most of my ability to recreate and travel has been largely destroyed, and I can no longer tolerate much sun exposure or outside activity. But at least I'm still alive and kicking, and am finally here at long last to present this story to you all.

I have enclosed a list of most of the medical setbacks I have had over the last 5 years in the written testimony. My

battle to stay healthy and out of the hospital has easily exceeded \$4.5 million at this point in time. No telling what my total medical bills will amount to, but while I lay in bed in the aphaeresis unit for 4 hours at a time, getting my blood circulated in the photophaeresis apparatus, I have plenty of time to worry about how I'm going to stay alive and still avoid bankruptcy.

I was awarded 100 percent service-connected disability for my disease, but have found funding for anything other than pharmacy items to be very difficult to access at the VA hospital in Houston, Texas. I was forced to give away my practice at a great financial loss. Because of my need for chronic immune suppression, I will probably never be able to see patients again. All of the dedication and years of training I invested from the seventh grade onward have been wasted by a career cut short in its prime by this debacle.

My wife and I now have two new full-time careers, just staying alive and figuring out how to pay for it all.

I am here today to urge you to compel ATSDR, or preferably another truly impartial agency, to investigate the fates of those adults exposed as I was. I continue to receive phone calls from adults similarly exposed, suffering from lymphomas, who are just now finding out about this event. I am certain most of the hapless victims of this silent disaster are either dead or unaware that they are sick at an early age with cancer. They need help with their medical expenses and monitoring for future medical and possible developmental problems in their progeny.

This is not a faceless disaster. There are many people undoubtedly involved in the initial mismanagement and subsequent coverup of this entire event. There certainly has to be some credible explanation for at least the period in which my family was involved from 1980 to 1983.

There is a chain of command in the Navy and Marine Corps. Decisions surrounding management of the public water system on a Marine base are not made in a vacuum. A complete investigation needs to be initiated, with congressional oversight and congressional subpoena power as needed. Some victims even feel that possible criminal activity may have been involved.

The criminal investigation begun several years ago at the request of a number of victims and their families needs to be reopened. We also need to make sure this is not something akin to a version of the infamous Tuskegee experiment.

Members of the committee, I thank you for allowing me to speak before you today and I would be happy to answer any questions you might have.

Mr. Stupak. Thank you.

[The prepared statement of Dr. Gros follows:]

Testimony of Michael L. Gros M.D.

Good morning ladies and gentlemen of the committee, and thank you for inviting me to speak before you regarding the unfortunate water contamination issue involving the Marine base at Camp Lejeune, North Carolina.

My name is Michael L. Gros, M. D.

My involvement with this event spans the time period from July 1980, to July 1983, when I lived at H-57, MOQ and worked at the Naval Hospital as a staff Ob/Gyn. A brief chronology of my service dates is provided below:

B. A. 1974, Trinity University, San Antonio, TX
M.D. 1976, Baylor College of Medicine, Houston,
TX, Navy Scholarship

Internship and Residency in Ob/Gyn, 1976-1980,
NRMC, Portsmouth, VA.

Staff Ob/Gyn, July 1980-July 1983, Camp Lejeune,
N. C., LCDR, MC, USNR

Private practice Ob/Gyn, 1983 to 2002, Houston,
TX.

Medically retired May 2002 to present due to Non-
Hodgkins Lymphoma

I come before you as a representative of many individuals and families who were adversely affected over a forty or more year time frame by contaminated water at Camp Lejeune. I am unfortunately well qualified by virtue of a harrowing and life altering experience with Non-Hodgkins lymphoma and its treatment involving a bone marrow transplant (BMT) and the

unfortunate development of severe chronic graft vs. host disease (GVHD) from which I now suffer, continuously.

My family and I moved to Camp Lejeune in July 1980, after I finished my U.S. Navy internship and residency in Ob/Gyn at NRMC, Portsmouth, VA. Ironically, we desired Camp Lejeune as a duty station since it was stateside and, at the time, seemed safe for the family. Little did we know that quite the opposite was true.

Unknown to us, Camp Lejeune had ground water and well water contamination with various volatile organic compounds such as trichloroethylene (TCE) and perchloroethylene (PCE), among other chemicals, that may have originated as early as the 1950's. This was due to improper disposal of these agents used in machinery overhaul and improper location of wells in areas affected by seepage into the water table. Our house at H-57 MOQ was supplied by the Hadnot Point water system. Acceptable levels of TCE are <5ppb. Our house had at least 1,400 ppb TCE (maybe higher), and one well, No. 651 in the Hadnot Point field had an astounding 18,900 ppb TCE when finally taken off line 1985, two years after we left.

So for all of our three years living on base at H-57 MOQ we were ingesting and inhaling this poisonous water and its vapor from showering and bathing (worse when heated up). Our food and the baby's formula and toddler's Kool Aid were mixed with this seemingly clean water. This poisoning has no taste and no smell and so is undetectable by usual means. The cancerous effects do not appear until 10-15 years post exposure (latency period noted in ATSDR documents).

From 1980 onwards, Camp Lejeune's own documents reveal that routine water tests typically performed on chlorinated water systems (trihalomethanes, THM) showed the presence of major contamination from other organic compounds requiring further action. Levels of these contaminants were so high as to preclude THM testing. No records of any further action on Camp Lejeune's part exist. In fact, this THM testing was simply again repeated at intervals with similar results and again a shocking lack of further clarification. Where was CLNC's concern for the safety of its residents?

The technology involved in finding these poisons was readily available, but was either neglected due to incompetence or deliberately not done for unknown reasons. It is incomprehensible that this happened. Who made such bad decisions? Why was this ghoulish experiment performed on our military volunteers and their families?

Such a failure to follow up on abnormal tests in my profession would have caused me to lose my medical license or at best, face a malpractice suit I was sure to lose. I am sorry that I think from a doctor's perspective, but I feel people in charge of the welfare of others, such as managers of public water systems, should be held to standards of conduct commensurate with the serious nature of their jobs.

In spite of multiple handwritten warning notes on repeated test reports over several years period of time, the advice of the base's own outside water consultants to further identify and quantitate the poisoning chemicals was repeatedly ignored. Amazingly, no follow up tests were ever done to even identify the nature of the interfering chemicals or their sources. Even more incredible was the Marine Corp's attempt to later justify this gross neglect with the tact that no "law" existed requiring them to exercise the good judgment and caring that any other contemporary water supplier would have had for its customers. For example, the horribly polluted well, No. 651, (drilled next to the dump!) was not taken off line until 1985, two years after we left Camp Lejeune. Were we all unwitting lab rats?

Since chemicals such as trichloroethylene and perchloroethylene are undetectable by the usual modes of taste and smell, when I left active duty to move to Houston, Texas, I was completely unaware that we had been systematically, unethically, and heartlessly poisoned during our 3 years at Camp Lejeune.

I began a private practice in Ob/Gyn in Houston, TX. Although I felt well, I began to show subtle lab abnormalities as early as 1993 and 1994, and definitely by 1997, these lab tests showed a marked shift in my complete blood count with an elevation of lymphocytes. To make a long story short, from 10-15 years removed from living at Camp Lejeune, I had developed a slowly progressive and untreatable Non-Hodgkins lymphoma called Cutaneous T-Cell lymphoma (CTCL), otherwise known as mycosis fungoides.

My only treatment option would eventually be a bone marrow transplant when the disease reached such a point that my resistance to infection would be so low that I could no longer see patients.

As I was seeing patients one day in November 1999, I was contacted out of the blue by Marie Sochia from the Agency for the Toxic Substance and Disease Registry (ATSDR). She informed me that my younger son, Tom, conceived and born at Camp Lejeune, was to be studied as part of an "in utero" study, due to his chemical exposure at Camp Lejeune. This was my first knowledge of any toxic water at my former base.

It was then that I made the connection between my disease and TCE and PCE exposure, which I had suffered during three years of continuous exposure at Camp Lejeune, North Carolina. My son seemed fine. However, I had progressive lymphoma. I was happy to know that an infant study was to be done, but I was shocked to learn that no studies were felt by ATSDR to be warranted on the thousands of exposed adults. I vigorously dispute this conclusion.

In May 2002, my disease had progressed to the point where I had dangerously low immunity with the lymphoma replacing fifty percent of my bone marrow. I had to abruptly abandon my practice and be admitted for my only remaining chance at a cure, a bone marrow transplant (BMT).

As many of you know, this is not a walk in the park. BMT carries a significant mortality risk related to acute and long-term complications. Thankfully, the procedure rather quickly put the lymphoma in remission, but, unfortunately, has left me with severe chronic graft versus host disease. The quality of my life has really degenerated as a result. Most of my ability to recreate and travel has been largely destroyed. I can no longer tolerate much sun exposure or outside activity. But at least I am still alive and kicking and am finally here at long last to present this story to you all.

Here is a list of most of the major medical setbacks I have endured over the last 5 years:

- Graft versus host disease of liver, lungs, skin,
- eyes, gastrointestinal tract
- Pneumonia-bacterial
- Pneumonia-Pneumocystis carinii
- Cellulitis
- Acute and chronic renal failure
- Cataracts--both eyes
- Diabetes
- Heart failure
- Gastroenteritis
- Toxoplasmosis of the brain
- Squamous cell carcinoma of the skin
- Osteopenia
- Baldness
- Depression
- Hearing loss secondary to medications
- Anemia
- Fatigue
- Septicemia from a central line

My battle to stay healthy and out of the hospital has easily exceeded \$4\1/2\ million at this point in time. No telling what my total medical bills will amount to, but while I lay in bed in the aphaeresis unit for 4 hours getting my blood circulated in the photophaeresis apparatus, I have plenty of time to worry about how I am going to stay alive and still avoid bankruptcy.

I was awarded 100 percent service connected disability for my disease, but have found funding help for anything other than pharmacy items to be very difficult to access at the V.A. hospital in Houston, TX.

I was forced to give away my practice at a great financial loss. Because of my need for chronic immune suppression, I will probably never be able to see patients again. All of the dedication and years of training I invested from the seventh grade onward have been wasted by a career cut short in its prime by this debacle.

My wife and I now have new full time careers--just staying alive and figuring out how to pay for it all.

I am here today to urge you to compel ATSDR, or preferably another truly impartial agency, to investigate the fates of those adults exposed as I was. I continually receive phone calls from adults similarly exposed, suffering from lymphomas,

yet just now finding out about this event. I am certain most of the hapless victims of this silent disaster are either dead or unaware why they are sick at an early age with cancer. They need help with their medical expenses and monitoring for future medical and possible developmental problems in their progeny.

In my opinion, there is an ongoing coverup involving this disaster, and ATSDR may well be "running the point" for the responsible governmental agencies or chemical manufacturers. The absence of relevant documents showing any reasonable chain of responsibility, combined with the trumped up and utterly unbelievable attempts at public relations put out by the Marine Corps, are very telling in this regard. Instead of wisely spending the tax payors money finding and assisting all those exposed to this chemical cocktail, the Marine Corp has seen fit to hire a public relations and strategy firm (Booze Allen Hamilton) to arrange misleading town meetings, whose predetermined exculpatory findings insult our intelligence. It seems no one is responsible for any of this man-made disaster. Ladies and gentlemen, I do not believe any of this rubbish.

This is not a faceless disaster. There were many people undoubtedly involved in the initial mismanagement and subsequent cover up of this entire event. There certainly has to be some creditable explanation for at least the period in which my family was involved from 1980 to 1983. There is a chain of command in the Navy and Marine Corps. Decisions surrounding management of a public water system on a Marine base are not made in a vacuum.

A complete investigation needs to be initiated with congressional oversight and congressional subpoena power as needed. Some victims even feel that possible criminal activity may have been involved. The criminal investigation begun several years ago at the request of a number of the victims and their families needs to be reopened. We also need to make sure this is not something akin to a version of the infamous Tuskegee experiment.

Members of the committee, I thank you for allowing me to speak before you today.

I would be happy to answer any questions you might have.

Mr. Stupak. Mr. Ensminger, your opening statement, please, sir.

STATEMENT OF JEROME ENSMINGER

Mr. Ensminger. Good morning. My name is Jerry Ensminger, and I served my country faithfully for 24 1/2 years in the United States Marine Corps.

I would like to take this opportunity to thank the chairman, the committee members and their staffs for all the hard work that went into making these hearings possible.

I must say that it has been inspiring for me to have tuned in to C-SPAN these last several months and witnessed our Congress doing what our Founding Fathers intended. You have been taking on the tough issues that matter to the majority of our citizens, not just the issues that affect special interest groups and big business. And I am quite sure most Americans applaud you for your efforts.

I am appearing here today as one spokesperson for the hundreds of thousands of Marines, sailors, their families, and the loyal civilian employees who were unknowingly exposed to horrendous levels of toxins through their drinking water at Camp Lejeune, North Carolina.

Camp Lejeune is quite possibly one of, if not the worst, water contamination incidents in history. I can confidently make this claim based on the potential numbers of people who were exposed and the documented levels of contaminants that were present in the finished drinking water at this base. Ironically, most of these people still do not have any idea that they were exposed to these contaminants at Camp Lejeune. They have not been notified, and the United States Marine Corps has to date refused to institute any type of legitimate notification plan or policy.

I can assure you that there are many more individuals and families who are now literally spread out all over this country, if not this world, that are wondering, what happened to me, "What happened to my family member?" these people deserve an answer. It is time for the United States Marine Corps to live up to our motto, which is Semper Fidelis, which is Latin for "always faithful."

My daughter Janey was conceived while her mother and I lived in one of the base family housing units that was affected by the contaminated drinking water at Camp Lejeune. Just like our other children, Janey was born seemingly normal; that is, until she was diagnosed with acute lymphocytic leukemia at the age of 6.

In 1997, the Agency for Toxic Substances and Disease Registry, or ATSDR, proposed a childhood leukemia/non-Hodgkins lymphoma study for children exposed to VOCs in utero while their parents lived at Camp Lejeune between the years of 1968 and 1985. The proposal, which was sent to the Secretary of the Navy, stated that the expected occurrences of these illnesses in a group of 10,000 to 12,000 births for that same time period was 7.2 cases. ATSDR has now already confirmed 14 cases of leukemia and two cases of childhood non-Hodgkins lymphoma out of 12,598 respondents to their survey. This is more than a 100 percent increase in the instances of these childhood cancers.

Mr. Chairman, the bottom line is this: DoD officials had been repeatedly notified by three different analytical laboratories over a span of 4.5 years about the existence of these chemicals in Camp Lejeune's finished drinking water. One laboratory wrote a letter on August 10, 1982, to Camp Lejeune's commanding general, telling him that the high levels of chemicals that they had found in their water were more important from a health standpoint than what they had sent their water to be tested for in the first place, which was TTHMs.

DoD authorities took no action to identify the source of these chemicals in their water for 4.5 years following their discovery. We have discovered documents where DoD representatives have admitted that the ATSDR had incorrect water system data for Camp Lejeune.

Ms. Kelly Dreyer of Headquarters Marine Corps wrote a 16 November 2000 e-mail to a Mr. Neil Paul at Camp Lejeune's Environmental Management Department citing the incorrect data and directing its correction. Ms. Dreyer wrote in her e-mail that it was important that we set the record straight. She asked Mr. Paul to prepare a memorandum to the ATSDR with all of the correct information, and placed a 1 December 2000 deadline for its completion. Then I discover another e-mail from Ms. Dreyer, dated 16 March 2001, 4 months later; this time to a Mr. Rick Raines, a subordinate of Mr. Paul's at Camp Lejeune, repeating the very same request.

This information was related to the incorrect water system data which caused the ATSDR to overlook more than 1,500 babies in an earlier study. We now know that the memorandum never got written. ATSDR never found out that they had been provided incorrect water system data for Camp Lejeune until I informed Dr. Frank Bove in a telephone conversation in 2002.

The credit for the discovery of the incorrect water system data belongs to Major Tom Townsend, United States Marine Corps (retired). He now lives in Moscow, Idaho. It was through Major Townsend's diligent and aggressive letter writing and Freedom of Information Act request campaign that much of the factual information about Camp Lejeune was uncovered. Major Townsend lost an infant son and, more recently, his wife of more than 50 years to this contamination.

Over the nearly 10 years that I have been involved in this situation, I have had much interaction with the various DoD personnel who have been involved in this situation. While some have been understanding, others have been just as, if not more, hurtful and arrogant.

During the 1990's and early 2000's, there have been, in my estimation, multiple violations of the CRCLA and RCRA laws in regards to Camp Lejeune. It is suspected that 6 years ago the United States Environmental Protection Agency granted our Department of Defense the authority not to list anymore of their contamination sites on the national priority list. I must also assume that this was executed with the full blessing of the Bush administration, or else the EPA's decision would have been overturned.

There is something that a lot of Americans do not understand. The United States Department of Defense is our Nation's largest polluter. Prior to the EPA granting authority, DoD had 172 highly contaminated sites on the national priority list. I realize that it is of the utmost importance that we maintain a strong defense. I also understand firsthand what happens if we do not maintain our environment at the same time. What will we have left to defend? A toxic waste dump.

Yes, our Department of Defense should be held to the same

standards as every other industry in our Nation. The Department of Defense would not tell the truth about their own accidental killing of our own soldiers in a combat zone; i.e., Pat Tillman. What makes anyone believe that they would not lie about the contamination on their installations right here in the United States?

My daughter Janey lost her battle against her malignancy nearly 2\1/2\ years after it started. Janey went through hell, and all of us who loved her, we went through hell with her. Janey died at 3:35 p.m. on 24 September 1985. She was only 9 years old.

Thank you, Mr. Chairman.

Mr. Chairman, I would like to share with the committee the dialog of a telephone conversation I had recently with someone from headquarters Marine Corps.

Mr. Stupak. Go ahead.

Mr. Ensminger. On the 10th of April I called Headquarters Marine Corps to find out what happened to the funding for the National Academy of Sciences review, funding that was authorized by the defense authorization bill, and I got Ms. Kelly Dreyer on the phone, and we were discussing this and several other issues. And Ms. Dreyer accused me of having a lot of pent-up anger. I couldn't believe that she said that.

But I recounted to Ms. Dreyer, and the fact that she's a mother, what I went through as a parent through the illness of my daughter. I informed her of the shock that happens to a parent when their child's diagnosed with one of these catastrophic illnesses. I had to have letters written so that I could attain a humanitarian transfer so my daughter could be transferred to Penn State University Medical Center where my home's at, where my family was for support. And one of the doctors wrote a letter and I read it, and it said at her diagnosis, her white blood count was over 150,000, which put her in a high-risk category and limited the ability or the chances that she would have long-term survival.

I lived that nightmare every day from the time I saw that letter. Every day that entered my mind. And then I reminded Ms. Dreyer about what she went through in the treatment rooms. Every time she got stuck with a needle, I was there holding her. She was screaming in my ear. Every time they stuck a needle through her bone in her hip to pull out bone marrow, I held her and she screamed in my ear, "Daddy, "Daddy, don't let them hurt me." And the only thing that I could say to her was, "Honey, the only reason they're hurting you is they're trying to help you."

And then I reminded Ms. Dreyer about every time Janey got hit with chemotherapy, and she was heaving her guts out, and all I could do was stand and rub her back and soothe her.

And then when Janey came home from school, when she could finally go back to school, crying because the other kids at school picked on her because her treatments made her look like a freak.

And then on the day of her death, I started crying. I hadn't cried in front of Janey before that time because she was pulling her strength from me. And I had to be strong for her. If I had to cry, I went somewhere else. But that day I started crying, and she looked up at me, and she had pneumonia that bad she could hardly talk, but she said, "Stop it." and I said, "Stop what?" she said, "Stop crying, Daddy. I love you."

That was the last words my daughter said to me. She went into a coma. Thirty-five minutes later, she took her last breath, and I since that conversation with Ms. Dreyer I have thought about that statement she made to me. And you know what? Through these people's misconduct and their deceit, they haven't filled me with a lot of pent-up anger. What they have filled me with is a terrible resolve to expose their misconduct, their arrogance, and their incompetence. And I want to expose the truth.

Thank you.

Mr. Stupak. thank you for your testimony.

[The prepared statement of Mr. Ensminger follows:]

Testimony of Jerome M. Ensminger

Good morning, my name is Jerry Ensminger and I served my country faithfully for 24\1/2\ years in the United States Marine Corps. I would like to take this opportunity to thank the chairman, the committee members, and their staffs for all of the hard work that went into making these hearings possible. I must say that it has been inspiring for me to have tuned into

C-SPAN these last several months and witnessed our congress doing what our founding fathers intended. You have been taking on the tough issues that matter to the majority of our citizens, not just the issues that affect special interest groups and big business. I, and I am quite sure most Americans, applaud you for your efforts.

I am appearing here today as one spokes person for the hundreds of thousands of Marines, Sailors, their families, and the loyal civilian employees who were unknowingly exposed to horrendous levels of toxins through their drinking water at Camp Lejeune, N.C. Camp Lejeune is, quite possibly, one of, if not the worst, water contamination incidents in history. I can confidently make this claim based on the potential numbers of people who were exposed and the documented levels of contaminants that were present in the finished drinking water at the base. Ironically, most of these people still do not have any idea that they were exposed to these contaminants at Camp Lejeune. They have not been notified and the United States Marine Corps has to date refused to institute any type of legitimate notification plan/policy. I can assure you that there are many more individuals and families who are now literally spread out all over the country that are wondering, "What happened to me?" "What happened to my family member?" These people deserve an answer. It is time for the United States Marine Corps to live up to their motto "Semper Fidelis" which is Latin for "Always Faithful."

My daughter Janey was conceived while her mother and I lived in one of the base family housing units that was affected by the contaminated drinking water at Camp Lejeune. Just like our other children, Janey was born seemingly normal, that is until she was diagnosed with Acute Lymphocytic Leukemia at the age of six. In 1997, the Agency for Toxic Substances and Disease Registry (ATSDR) proposed a childhood Leukemia /Non-Hodgkins Lymphoma study for children exposed to VOCs in-utero while their parents lived at Camp Lejeune between the years 1968-1985. The proposal (CLW 2815-2832) which was sent to the Secretary of the Navy, stated that the expected occurrences of these illnesses in a group of 10,000-12,000 births for that time period was 7.2 cases. ATSDR has now confirmed 14 cases of leukemia and two non-hodgkins lymphoma out of 12,598 respondents to their survey. This is more than a 100 percent increase in the incidence of these childhood cancers.

On October 1, 1980, representatives from Navy Facilities Engineering Command, Atlantic Division from Norfolk, VA. Came to Camp Lejeune. They took a composite water sample of all eight water systems that were operating on Camp Lejeune at that time. The results of this composite sample (CLW 0430) showed VOC contamination that exceeded today's Maximum Contaminant Level (MCL) of 5ppb. We must remember that this was composite (combined) sample of which 6 of the contributing water systems were not deemed to be contaminated. Ms. Elizabeth Betz, Supervising Chemist at Camp Lejeune's Quality Control Laboratory wrote a memorandum (CLW 0613) dated 31 August 1982 that specifically addressed the 1 October 1980 sampling event. First and foremost, the analytical results for this sample were not provided to Camp Lejeune until 12 August 1982 and Ms. Betz points out errors that were committed during the sample collection process. Also, during October of 1980 the United States Army Environmental Hygiene Team from Fort McPhearson, GA. Began testing certain water systems aboard Camp Lejeune for total Trihalomethanes (TTHMs). Their analysis of the 30 October 1980 water samples taken from the Hadnot Point Water Distribution System had the following hand written remark: "Water is highly contaminated with low molecular weight halogenated hydrocarbons." (CLW 0436) On 29 December 1980 another sample was taken from the Hadnot Point system and again the U.S. Army laboratory wrote a note on the analytical form, Heavy organic interference at CHCL2BR. You need to analyze for chlorinated organics by GC/MS. (CLW 0438) Once again samples were taken of the same system on 30 January 1981 and the U.S. Army laboratory wrote on the analytical result form You need to analyze for chlorinated organics by GC/MS (GC/MS is an abbreviation for Gas Chromatograph / Mass Spectrometer.) Finally, on 9 March 1981 more samples of Hadnot Point water system were collected and analyzed. The U.S. Army laboratory once again wrote a note at the bottom of the analytical result form Water highly contaminated with other chlorinated hydrocarbons (solvents)! (CLW 0443) These analytical result forms were being sent by the U.S. Army directly to the Navy Facilities Engineering Command, Atlantic Division, Norfolk, VA.

No action was taken. In fact, officials at Camp Lejeune were unaware of the U.S. Army's finding until the Summer of 1982. When the EPA's MCLs for TTHMs went into effect in 1982, Camp Lejeune was required to use a North Carolina state certified laboratory for the analysis of their water. Grainger Laboratories of Raleigh, N.C. was contracted by Camp Lejeune to analyze their water samples. In May 1982, a Grainger laboratory representative phoned Ms. Betz of Camp Lejeune and informed her that they had found high levels of Volatile Organic Chemicals (VOCs) during their analysis of the Hadnot Point and Tarawa Terrace water systems. They had a problem with some of the sample bottles and they requested that Camp Lejeune take new samples. On 10 August 1982, Mr. Bruce A. Babson, a chemist with Grainger laboratories, wrote a letter to the Commanding General of Camp Lejeune. (CLW 0592,0593) In his letter Mr. Babson stated "Interferences which were thought to be chlorinated hydrocarbons hindered the quantitation of certain trihalomethanes. These appeared to be at high levels and hence more important from a health standpoint than the total Trihalomethane content. For these reasons we called the situation to the attention of Camp Lejeune personnel." Mr. Babson went on in his letter to describe the levels of the chemicals they had found in the samples. Tetrachloroethylene (PCE) 104 ppb in the Tarawa Terrace (TT) sample and Trichloroethylene (TCE) 1,400 ppb in the Hadnot Point sample. There was absolutely no action taken by Camp Lejeune officials after they received this warning. On 19 August 1982, Ms. Betz wrote another memorandum (CLW 0606-0607) to Mr. Sharpe, Supervisory Ecologist, Environment Section. In her memorandum Ms. Betz outlines the Grainger laboratory results and she also discusses the EPA suggested no adverse response levels (SNARLS) for the chemicals found in Camp Lejeune finished drinking water. In paragraph 8 of her memo Ms. Betz writes that the levels of PCE for the Terawa Terrace system exceed the EPA's guidance. In fact, they were more than doubled. Grainger laboratories continued to test Camp Lejeune's finished drinking water for TTHMs throughout 1982-1983 and each time they detected high levels of VOCs. They contacted Camp Lejeune and they annotated it on their analytical result form. (CLW 0693, 0953) No action was taken!

In 1982 the U.S. Navy began their Navy Assessment and Control of Installation Pollutants (NACIP) Initial assessment study (IAS) of Camp Lejeune. This program was started in 1980 by the U.S. Navy to identify any possible "Love Canals" at any Naval shore installations (CLW 4994). The NACIP IAS was completed for Camp Lejeune and they issued their report in April 1983. The general finding of the NACIP IAS report stated in paragraph 2.2.2 "Seventy six waste disposal sites have been identified; however, most (54) do not contain hazardous waste or do not pose a significant threat to human health or the environment." and 2.2.4 "No industrial or municipal wastes were found to be migrating onto base property." I would like to know how these "experts" came to this conclusion. Did they take water samples from the groundwater aquifers or did they make this assumption from a quick drive around the boundary of the base? Camp Lejeune officials, quick to seize on this IAS report, wrote a letter to the State of North Carolina, Division of Health Services, Solid and Hazardous Waste Management Branch (CLW 0948). In their letter to the state, a Camp Lejeune official wrote "The study concludes that none of the 76 sites pose an immediate threat to human health or the environment." There is quite a big difference in the definition of the words "most" and "none", especially when they are used in reference to hazardous waste sites and human health! There are some very pertinent questions about the NACIP IAS that remain unanswered. Did Camp Lejeune inform the NACIP IAS team that VOCs had already been detected in their finished drinking water? Did the NACIP IAS team ask for existing analytical results of Camp Lejeune drinking water when they inspected the water treatment plant? The NACIP IAS was on-going when Camp Lejeune received the 10 August 1982 letter (CLW 0592) from Grainger Laboratories. Did Camp Lejeune provide this letter to the NACIP/IAS team? It would be my guess that none of this information was shared with the NACIP IAS team. I make this assertion based on a letter dated October 25, 1985 from the State of North Carolina to Mr. Larry Fitzpatrick. The attachment to this letter was an assessment written by Mr. Rick Schiver of N.C.s Department of Environmental Management concerning the groundwater contamination at Camp Lejeune. In his assessment, Mr. Schiver wrote "During July 1984,

confirmation studies were begun at eighteen (18) priority sites. The results of these groundwater studies were documented in a report provided to the Marine Corps in February 1985: as the Marine Corps disagrees with the conclusion in this report, it will not release a copy of it to any outside agency. It is my estimation that when the NACIP team came back to Camp Lejeune in July 1985, officials at the base, realizing that the NACIP confirmation study would reveal the existing groundwater contamination, they informed them of the existing analytical results. It is my opinion that the NACIP team was both professionally embarrassed and appalled by the fact that this information had been available during their IAS of the base in 1982. They had neither asked for it and worse, Camp Lejeune officials concealed the information from them. I suspect that the NACIP team wrote a scathing confirmation study report about Camp Lejeune. No one with whom I have personally spoken, has seen this report. It is imperative that Congress obtain a copy of this original report. I believe that it is the smoking gun in relation to the drinking water contamination at Camp Lejeune.

As stated previously, the NACIP Confirmation study began in July 1984 (Note: The U.S.E.P.A. issued RMCLs for VOCs in June 1984) and they began testing the individual water supply wells in October. The results of these samples began to trickle back in during November and December of that year. It was more than 4 years after the initial discovery of VOCs in Camp Lejeune's finished drinking water before they took any action to remedy the situation. During the months of November and December of 1984, Camp Lejeune removed (7) contaminated water supply wells from service in the Hadnot Point system. In January 1985, the Chief of Staff's wife smelled fuel in the tap water at their quarters on Paradise Point officers' housing area. This housing area was served by the Holcomb Blvd. water treatment plant since August 1973. (Note: Remember this water system and date; it becomes very important later in time) Camp Lejeune maintenance workers discover that an emergency back-up generator fuel line had burst, allowing fuel to enter the water system. The Holcomb Boulevard plant was immediately taken off line and this area was provided Hadnot Point water via an existing inter-tie between the two systems. Camp Lejeune officials notified N.C. state health and environmental authorities of the accidental contamination. After thoroughly flushing the Holcomb Boulevard system with Hadnot Point water, military and N.C. state authorities began testing the water to ensure that the fuel had been sufficiently flushed out of the system. What they found was worse! At the Berkley Manor Elementary School they found Trichloroethylene (TCE) at 1,148.4 ppb and Dichloroethylene (DCE) at 406.6 ppb. (CLW 2254) This is when well No. 651 of Hadnot Point water system was discovered. This well was located at the back corner of Lot No. 203, the Defense Revitalization Management Office yard; (The base junk yard!) (Note: Well No. 651 was constructed in 1971, 30 years after operations began at Lot No. 203). This well tested at 18,900 ppb of Trichloroethylene (TCE) and 655 ppb of Vinyl Chloride during early February 1985 testing. It should be pointed out that well No. 651 was the only contaminated well that was still pumping during the January, February 1985 time frame. This one contaminated well caused finished drinking water samples to exceed the 1,000 ppb for TCE alone. One can only imagine what the levels of contaminants were prior to the November/December 1984 time frame when several of these contaminated wells would have been pumping at the same time. Hopefully, the ATSDR's on-going computerized water modeling will answer that question. During this same time frame, the water system for the Tarawa Terrace (TT) base family housing area was found to be contaminated with high levels of Tetrachloroethylene (PCE). It should be pointed out at this time that the highest contaminated water supply well for TT (TT--26 @ 1,580 ppb PCE) was constructed at the property line. TT's well field was constructed down gradient and directly across the street from a dry cleaning establishments, gasoline stations, automotive repair facilities, and known septic sewage ground absorption systems.

On 11 March 1985, Mr. Julian Wooten, Director of Camp Lejeune's Natural Resources and Environmental Affairs Division wrote what I can only describe as a C.Y.A. letter. (CLW 1179-1180) In his letter, Mr. Wooten explained, in remarkable detail, the recommendations of, and the sources contacted (and not) by Mr. Hubbell. My only regret about this letter is that Mr. Wooten concurred with Mr. Hubbell's recommendations. (See

paragraph No. 3, CLW 1180) Mr. Wooten was a personal friend of mine. When I discovered this letter, I was greatly disheartened and disillusioned by his actions (or lack there of). I lost a lot of respect for this man. It is quite obvious that these authorities were playing a selective game of Ostrich; put your head in the sand and do not look back where you know the damming Information lies. That way if all of this comes up later, they can say, "We did not know any better." This is the exact tactic that has been employed by the D.O.N. and the USMC ever since this situation truly became public in 1997. Mr. Wooten retired in the 1990s; Mr. Hubbell holds a flag rank civilian Position at HQMC. His biography can be viewed on the USMC's official Web site www.usmc.mil General officer biographies.

On October 4, 1989, (CLW 4976) Camp Lejeune was placed on the National Priority List (NPL) for contamination sites. This appointment automatically required the ATSDR to execute their Congressionally mandated mission and perform an assessment at Camp Lejeune for human exposures to the contamination. Initially, the USMC provided information to the ATSDR (see PHA for Camp Lejuene) and the public about the Tarawa Terrace Hadnot Point and Holcomb Blvd. service areas that was incorrect and blatantly untrue! When the ATSDR began their assessment of the contamination at Camp Lejeune, there were several letters written requesting data on the water systems and the contamination sites on the base. On February 23, 1993, Ms. Nancy L. Sonnenfeld of the ATSDR's Epidemiology and Surveillance Branch Wrote a letter to Mr. Neal Paul of CLNC, Environmental Management Department (CLW 2245, 2246). In her letter, Ms. Sonnenfeld explained exactly what information / data the ATSDR was looking for, drinking water distribution systems data. I would like to point out the statement made by this scientist at the beginning of paragraph No. 3 in this letter. It is my opinion that statements such as these are considered pandering and gives the impression that the ATSDR is willing to play on both sides of the fence! While I did obtain this letter, none of the enclosures have ever been made public. A letter written to CLNC on March 5, 1993 (CLW 2247) ATSDR environmental engineers were requesting copies of site related materials appropriate for the preparation of public health assessments. The author of this letter, Mr. Stephen S. Aoyama, P.E. was very thorough in his request. Please note the hand-written comments that were made on the letter at CLNC. "Final Reports Only--Send 2 or 3 Final R1/FS." This was not what ATSDR asked for; this was a deliberate stalling / harassment tactic. Then, on September 2, 1994 (Note: 6 days prior to their initial release of the Camp Lejeune PHA) the ATSDR's Office of Assistant Administrator wrote a letter to the Engineering Support Department, Navy Environmental Health Center (NEHC), Norfolk, VA. (CLW 2407) This letter states "We have sent MCB, Camp Lejeune several requests for information and, in most cases, the responses were inadequate and not supporting documentation was forwarded." (Note: All of the handwritten notes were on this letter when it appeared on the PDF file. (Please note the "knee jerk" comment at the lower left.) Then I find a letter from the Commanding Officer of the NEHC (CLW 2406) a subordinate command to CLNC "recommending" that they cooperate with the ATSDR and provide them with the requested data. Please note that higher headquarters was copied on this letter and the enclosure. I have found no documented involvement from higher headquarters where they chastised CLNC authorities for their lack of cooperation with the ATSDR. The fact that there is no documented corrective action from any of the higher headquarters is a clear signal that they complied with and were party to the tactics being employed by CLNC in this situation. I have found many data requests (in writing) from the ATSDR. I have never found any written submissions of data to the ATSDR from CLNC, not one! We have submitted Freedom of Information Act (FOIA) requests to the ATSDR and the USMC for any and all documents pertaining to data submissions from CLNC to the ATSDR. None of these FOIAs have ever been fulfilled. In fact, the Director of the ATSDR sent me a letter dated 4 May 2007 that his agency can not produce the supporting documents for their 4 August 1997, PHA of Camp Lejeune. Dr. Frumkin stated that all of these reference documents had been "mistakenly" destroyed by a private contractor? It would be interesting to find out how many other N.P.L. sites P.H.A. supporting Documents have been lost or destroyed by this agency or is it only the Camp Lejeune documents?

At the same time the ATSDR was conducting the PHA for Camp

Lejeune, (1992-97) the ATSDR proposed an adverse pregnancy outcome study for the years 1968-1985. (CLW 2528-2529) This study was conducted and it became the basis for the Camp Lejeune Health Survey (1999-2003) and the epidemiological study that is still in progress. There is a problem with the findings of this initial study. Camp Lejeune officials provided the ATSDR with incorrect water system/distribution data for the Holcomb Blvd. and Tarawa Terrace service areas. The ATSDR had been led to believe that the Holcomb Blvd. water service area had received their drinking water from the Holcomb Blvd. water treatment / distribution plant. This water treatment plant was not constructed until 1972 and the Camp Lejeune Plant Account records show it as becoming operational in August 1973. (CLW 3238) Prior to 1973, the base family housing in this area, Berkley Manor, Paradise Point, and Midway Park, received their water from the presumed contaminated Hadnot Point system. Furthermore, CLNC officials misled the ATSDR and the public to believe that when the 2 wells in the Tarawa Terrace (TT) system had been taken off line because of contamination, they shut the entire TT water distribution system off. They proclaim in many documents (CLW 3075, 3076, 3077, 3161) that without the production from those two contaminated wells, the TT plant could not meet the water demand. Since 1985 TT received their water from the Holcomb Blvd. system. We know that this was not the truth, the Tarawa Terrace water system stayed in production and on-line until March 1997. Because of the incorrect information for the Holcomb Blvd. service area an estimated 1,500 pregnancies were overlooked in the 1968-1985 "Adverse Pregnancy Outcome" study. I have no idea how many babies were excluded because of the erroneous data on TT. We also know from internal USMC documents that Camp Lejeune officials turned on one of the known contaminated TT wells to meet water demand during peak demand periods. (CLW 1132) An action brief (CLW 1129--1131) written by the Assistant Chief of Staff Facilities on 1 March 1985 outlined the alternatives for providing water to the Tarawa Terrace (TT) base housing area. The USMC constantly states that their highest priority is the Health and welfare of their Marines, Sailors, their families, and the civilian employees on their bases. I can assure you that this document, and the alternatives that we now know were chosen, do not support those claims. According to the alternatives that we now know were selected from this document, health and welfare took a back seat to money and favors. In 1999, Major Tom Townsend, USMC (Retired) began a very aggressive letter writing / FOIA campaign. His intent was to procure as much information pertaining to the situation as he could. It was Tom Townsend who, in 2000, discovered the incorrect water system data for the Holcomb Blvd. service area for the years of 1968-1973. He immediately notified USMC officials (in writing) of the error. On 16 November 2000, Ms. Kelly Dreyer, Project Officer, Camp Lejeune Water Contamination, Installations and Logistics Branch, Headquarters Marine Corps (HQMC) sent an e-mail to Neal Paul at CLNC, EMD. In her email Ms. Dreyer outlined the incorrect water system data situation to Mr. Paul. She told him that it was "important to set the record straight" and she wanted him to write a memorandum to ATSDR with the correct information. Ms. Dreyer went on to spell out in detail what information she wanted on the memo and gave him a "by date" for completion and signature of 1 December 2000. She also directed that the Commandant of the Marine Corps and the NEHC be copied. Four months later, March 16, 2001, Ms. Dreyer sends another e-mail to CLNC, EMD requesting the very same information. (CLW 3307) The only difference is that this time she addresses her request to Mr. Rick Raines, a subordinate of Mr. Neal Paul who received the first directive. Needless to say, this memorandum was never written. The ATSDR never knew they had incorrect water system data until I told Dr. Frank Bove During a telephone conversation in 2002. The USMC had corrected their error by placing a new entry on their chronology which is located on their official Web site. The USMC never informed the ATSDR that their "Adverse Pregnancy Outcome" study had been skewed by the incorrect water system data. What is just as appalling is the fact that the USMC did not correct this error knowing full well that the ATSDR was well into their Childhood Cancer and Birth Defects study. Had it not been for Tom Townsend's diligence, this lie may never have been uncovered. The lies about the Tarawa Terrace water system were never rectified. It is unknown how many babies that were exposed to these contaminants have been overlooked by the ATSDR's studies.

When the ATSDR announced their proposal for a Childhood Cancer study on June 23, 1997 (CLW 2815) it caused a firestorm of lies and deceit amongst the USMC and DoN spin doctors. When any press interviews or press releases were issued concerning the Camp Lejeune water contamination, they always pointed to the Tarawa Terrace base housing area. This was because they had an off-base scapegoat on which to focus the attention of the media and the public. When the ATSDR went to the Secretary of the Navy to acquire funding for their proposed Childhood Cancer study in 1997, Ms. Elsie Munsell wrote a letter to the ATSDR. (CLW 2917) In her letter, Ms. Munsell wrote "the volatile organic chemicals found in the water supply under investigation came from an off base source, ABC One Hour Cleaners. According to our investigation, this off site source of contamination is a National Priorities Listed Site under the jurisdiction of the EPA. Therefore, in accordance with CERCLA 107(a), it is more appropriate for you to seek funding for the study from the responsible party." The USMC /DoN's incorrect water system data had worked wonders for them thus far. They had the ATSDR believing that the only one small housing area, the 21 housing units at Hospital Point, were exposed to contamination caused by the military. In reality, it was 1,929 units for the years of 1968-1973. They had the Secretary of the Navy's Office baffled as well and they got away with not funding the ATSDR's study because of it. The ATSDR then proceeded to pursue the funding from the White House Office of Management and Budget (OMB); they succeeded. OMB authorized the funding based upon III phases; if the 1st phase (the survey) showed enough data (cases), then it would proceed to the 2nd phase (verification of reported ailments). If the 2nd phase showed enough medically verified cases, then it would proceed into the 3rd and final phase, the epidemiological study of the confirmed cases. It is my opinion that the DoD agencies involved in the process did everything possible to kill this study in the 1st phase. They held the keys to all of the data that The ATSDR needed. To ensure the validity of the 1st phase of this study, 80 percent of the estimated 16,500 Pregnancies that occurred at Camp Lejeune between the years of 1968-1985 need to be contacted. DoD agencies initially pledged their support of these efforts, but it quickly degraded into stonewalling and delaying tactics. What better way to kill this study than by ensuring that the ATSDR did not contact the 80 percent of pregnancies required by OMB to validate the 1st phase? This very scenario was alluded to by Ms. Kathy Skipper of the ATSDR, Public Affairs Office in an e-mail to Ms. Kelly Dreyer of HQMC (CLW 3130).

Upon OMB approval of the ATSDR funding, ATSDR personnel proceeded with the writing and peer review for the protocol of their proposed study. Once all of this was accomplished, it was time to start mailing out the questionnaires to the small number of subjects that had thus far been identified. The Survey (Phase No. 1) was supposed to begin in January 1999; this did not happen because of an objection by DoN and USMC authorities in October 1998. Their objection was based on the release of the Hollywood movie A Civil Action! (CLW 2996--2999) It would appear (CLW 2995) that they had partial success in their efforts when they got the beginning of the survey kicked back by one month. In reality, the survey never started until October of 1999 when the USMC posted the "Camp Lejeune Area Water Survey" information sheet on their official USMC Web site. (CLW 3161) This document which cited the dates 1968-1985 carried on the lies; it only referred to Tarawa Terrace and Hospital Point housing areas as being affected by the contamination. It also continued the lie about Tarawa Terrace base family housing area being provided drinking water from the Holcomb Blvd. system since 1985. These people delayed the very mechanism (the study) that I was looking to for an answer to a question that had nagged at me for 15 years by this point. I wanted to know what caused my daughter's illness and her subsequent death. I still do not have that answer, but I do have a very good idea. To have discovered that this answer got delayed for another 9 months because of the release of a Hollywood movie was, to say the least, infuriating! DoD agencies never fully cooperated with the ATSDR's study efforts until the September/October 2000 time frame. This is when the ATSDR announced that they were going to execute a nationwide media blitz to locate enough (80 percent) of the estimated 16,500 pregnancies in order to validate Phase No. 1 of their study. It was at this point that the USMC finally somewhat relented. They (USMC) did not want the ATSDR to pursue this media campaign without their involvement. (It would make the

USMC look bad.) On 1 November 2000, a joint Pentagon Press conference took place which included Marine Corps and ATSDR representatives. It is quite obvious by reviewing the packet of documents that I printed from the Internet in November 2000, that the USMC was starting to correct some of their lies, but it is quite obvious from the conflicting information on different documents that they (USMC) were having a difficult time conveying the truth. CLW 1194 Procedures for operating the new well at Tarawa Terrace really makes me wonder if these people (USMC) ever really did stop using this well.

Mysteriously, most of the water treatment plant log book entries concerning water levels and booster pump operation for Tarawa Terrace ceased in May 1985. It is my suspicion that the contaminated TT new well (TT-23) continued to be operated until March 1987 when the Tarawa Terrace water treatment plant was closed. What other explanation is there for this document (CLW 1194) to have been generated?

There have been numerous federal agencies who have looked into the Camp Lejeune water contamination incident and they have issued reports, the most recent being the GAO. In February 2004, The Commandant of the Marine Corps named his Blue Ribbon panel to look into the issues surrounding the Camp Lejeune water contamination incident. This panel was appointed by the Commandant as a damage control tactic following the January 2004 Washington Post article concerning the contamination. When they (USMC) named the members of this panel, I knew that this was going to be one more white wash attempt. Senator Elizabeth Dole (R,N.C.) even called the Marine Corps selection of panel members absurd. They named former Congressman Ronald Packard (R,CA.) as the chairman; it did not take me long to figure out Mr. Packard's connection to this situation. He had previously represented southern California 48th district whose largest industry was Marine Corps Base, Camp Pendleton. It just so happened that Camp Pendleton was where the Commandant (General Hagee) had done the majority of his command time as a General Officer. Secondly, he chose retired General Hearney, the former Assistant Commandant of the Marine Corps (ACMC) for the years of 1994-96. I am quite certain that General Hearney had Attended briefings during his tenure as (ACMC) concerning the CLNC water situation. Thirdly, he appointed Mr. Robert Piere, the former Assistant Secretary of the Navy for Installations and Environment. It was this man's office who turned down the ATSDR's request for funding of the Camp Lejeune Childhood Cancer study in October 1997! When these panel members were named, there was such an overwhelming outcry of foul that the Marine Corps was forced to name (2) additional independent members to this panel. They appointed Dr. Robert Tardiff and Dr. William Glaze to the panel. I quickly vetted both of these new additions and found the following. Dr. Robert Tardiff was the President /CEO of the Sapphire Group. This company was nothing more than environmental hired guns; they performed risk assessments on chemicals and products for the highest bidder. Dr. William Glaze was the only member of this panel that could truly be considered objective and non-biased. The first meeting of this panel took place at Camp Lejeune in April / May time frame. After their meeting aboard the base, the panel members attended a press conference / meeting at the Jacksonville, N.C. U.S.O. This took place on a Friday and Dr. Glaze did not appear at the press interview the following Monday. His resignation from the panel was announced by the Chairman, Ron Packard. Mr. Packard stated that because Dr. Glaze was on the E.P.A.'s science advisory board, he (Dr. Glaze) feared that those duties might be a conflict of interest if they (EPA Science Advisory Board) were called upon to review the findings of the Commandant's Panel! No, Dr. Glaze who cherished his position in the world of academia saw the handwriting on the wall after he attended the first meeting at Camp Lejeune. If he wanted to retain his high standing that he had attained in academia and the scientific Community, he needed to distance himself from this fiasco. Then when the Commandant revealed his charter for this panel, I knew that it was a hoax. The charter charged the panel to review only the circumstances surrounding this situation from 1980-85. I knew right then that his entire panel was nothing more than a farce. It was akin to placing a band-aid over a sucking chest wound; too little, too late! This panel completed their charter and filed their report and while they found some fault with the actions of some departments the end result was no harm, no foul. This was what I predicted; this is what we got.

The EPA Inspector General's office did a small

investigation into some of the complaints pertaining to this situation. It was very small; they interviewed me once in person and then they issued their report. I was not even aware that they had issued a report until it was cited by the GAO.

The EPA Criminal Investigation Division conducted a criminal investigation into the circumstances surrounding the Camp Lejeune water contamination. I went to a briefing on the findings of this investigation on 25 August 2005 at the Department of Justice in Washington, D.C. At the briefing, it was stated that there were no crimes committed by DoD personnel or their representatives. In a recent telephone conversation with Special Agent Tyler Amon, the agent in charge of the Camp Lejeune investigation, he stated that he had recommended charges against personnel involved in this investigation. It was the judgment of the Department of Justice prosecutors that they could not successfully prosecute those charges in Federal Court. The GAO cited the EPA, CID investigation in their report. They wrote that the EPA, CID investigator reported that the Marine Corps admitted that if failed to adequately address concerns and data requests from the public and ATSDR. Failed to address data requests from the ATSDR? Is this not a violation of federal law? The fact that Marine Corps officials knew that the ATSDR had incorrect water system data for Camp Lejeune (provided by them) and they did nothing to correct it; is this not a violation of federal law? The fact that Marine Corps officials changed the answers to an interview for the media from the truth to a lie; is that not a violation of federal laws? I can assure you that had I pulled some of these very same stunts while on active duty, I would probably still be in Fort Leavenworth Federal prison. The fact that Mr. Townsend and I were only provided an abbreviated version of the investigation report, we still have some very valid questions that have not been answered. Was the DoD main-frame computers and servers searched for all e-mails pertaining to this matter? I can assure you, the number of e-mails that we now possess are only a fraction of the ones that were generated on this subject. The e-mails that currently exist were captured from personal computers or files that someone had printed off. If we are ever going to find the truth in this situation, it is my belief that it is lying in the servers of DoD and the CDC.

Most recently, (May 2007) the GAO published a report on a study that they had conducted on the circumstances surrounding the Camp Lejeune water contamination incident. First, I would like to point out that since the beginning of the GAO's efforts related to this situation, their principle investigator changed no less than (4) times. When this study began, Mr. John Oh was the principle. He left and his responsibilities were assumed by a Ms. Bonnie Anderson. When Ms. Anderson left a Ms. Danielle Organek took over and then she was finally replaced by a Ms. Karen Doran. It is no wonder that this report is so full of errors, omissions, and half-truths. How do you conduct a valid study into a situation that spans nearly thirty years and is as sorted and twisted as the Camp Lejeune situation without at least maintaining continuity? Furthermore, this report was written in consolatory language that wreaks of cover-up. There are too many areas in this report that are erroneous for me to list in this testimony. I am, instead, providing you with my own copy of the GAO report which I have thoroughly highlighted and annotated.

The Agency for Toxic Substances and Disease Registry (ATSDR) has been a bitter sweet experience for me. It is my opinion that the ATSDR's Department of Health Assessments and Consultations (DEHAC) has become an excuse mechanism for polluters and the chemical production industry. All anyone need do is review several of their Public Health Assessments and you will notice the trend. While they have become very skilled at changing their wording, the end result is always the same. No harm, no foul! They constantly state that there are too few studies available for them to draw any firm conclusions from. Then they recommend that no further studies are required for these exposures! How are they ever going to increase the scientific knowledge on the effects these chemicals have on humans if they do not recommend studies? The only reason that a further study was recommended at Camp Lejeune was Nancy Sonnenfeld who was working with the ATSDR while pursuing her PHD performed the Small for Gestational Age and Adverse Pregnancy Outcome study as her dissertation and her findings were apparently very profound. This is when the ATSDR recommended the Childhood Cancer / Birth Defects in utero study at Camp Lejeune. This all mainly happened because of a

dissertation! It really makes me wonder how many other N.P.L. sites that have been played down by one of ATSDR's Public Health Assessments (PHA) that truly deserved further studies.

The recent GAO report cites ATSDR officials as saying that their work at Camp Lejeune has not been delayed because of either a lack of cooperation from DoD entities or funding. If this is true, why is it that the exposure information in the Camp Lejeune final PHA is incorrect? If the DoD representatives who provided ATSDR this data were not at fault, I would assume that ATSDR staff incompetency was responsible. The fact is that the adverse pregnancy study overlooked 1,500 plus births in the Holcomb Blvd. service area. There is an unknown number of births at Tarawa Terrace that have been overlooked. Was this not because DoD representatives provided ATSDR staff with erroneous data? If it was not DoD's fault, then it must again be related to the incompetency of ATSDR staff. We know that the survey (Phase 1) was scheduled to start in January 1999, but it never started until late September of that year. We have also seen the e-mails recommending the delay of that survey because of the release of the movie A Civil Action. This delay was not requested by DoD entities? We know that the study covered the years of 1968-1985 and we now know that the Tarawa Terrace water system continued to operate until March 1987. Previously, we were told that it ceased operation in 1985. The ATSDR missed fifteen months worth of births at this base housing area. Since DoD entities have not done anything to hinder ATSDR's efforts at Camp Lejeune, then once again, this can only be attributed to the incompetency of ATSDR staff. How does the ATSDR explain all of the letters that have been written by them complaining about the lack of cooperation of DoD entities in the Camp Lejeune situation? They were cooperating, but the ATSDR just decided to write letters of complaint? The Agency for Toxic Substances and Disease Registry is, in my opinion, seriously deficient of an extremely important requirement, Intestinal Fortitude (GUTS). I realize that there is a need for cooperation between Federal agencies and departments. I also understand that every precaution should be taken to nurture and preserve a good working relationship between one another. The ATSDR needs to understand that respect is a two way street; there should be a limit to the evident lack of respect and cooperation that the ATSDR accepts from the DoD! I travel through rural North Carolina every day. During my travels, I pass through many poor, underprivileged, and under educated neighborhoods. Many of these people do not even have a grasp of the English language. God forbid that something like what happened at Camp Lejeune would happen to one of these neighborhoods. Who would be their champion? Who would stand up and fight for them? The ATSDR? They will not even make a stand to defend themselves! Would our EPA be there to defend these people? Evidently not. We had a panel of expert scientists recommend in their report last summer that our EPA should lower the protective standard for trichloroethylene (TCE) in drinking water without any further delay. It has been almost a year since that report was released. We still do not have a new standard. No, I am afraid that if an incident such as the contaminated water at Camp Lejeune happened in one of the aforementioned neighborhoods, it would be dead and buried along with their family members. It is my honest opinion that the citizens of our country would be better served if our Congress dissolved the ATSDR. Why pay for the up-keep of an agency that is quite obviously not accomplishing the mission for which they were created? I believe that our citizens and our environment would be better served if we contracted universities to perform the assessments at our NPL sites. I truly believe that we would get a more honest and thorough assessment than what we are getting now! Lastly, the ATSDR can not even produce the references (supporting documents) for their PHA of Camp Lejeune. (See my letter of April 16, 2007 to ATSDR and their response dated May 4, 2007.) The ATSDR stated in their 4 May 2007 letter to me that the references for the Camp Lejeune PHA had been destroyed by a private contractor. I would like to remind you that the GAO cited the EPA, CID investigation report which stated the documents had not been destroyed. It would appear Mr. Chairman that we have several Federal agencies involved in this fiasco who can not seem to get their answers straight!

In closing, I would like to say that the last 10 years have been a real experience for me. For an organization that supposedly prides itself on honor and integrity, the United States Marine Corps has certainly turned a blind eye to the documented misconduct and incompetence exhibited by their

civilian employees and officers in this situation. The fact that these people are still on their payroll or in their ranks is a silent nod of approval of their actions by headquarters. In fact, most of these individuals, with the exception of one, have been promoted and given more responsibility and authority. This is a scary scenerio; do you not agree?

My daughter, Janey, fought valiantly against her illness, but the malignancy was too strong. Janey succumbed to her disease at 3:35pm, Tuesday, 24 September 1985. She was only 9 years old.

Mr. Stupak. With consent of the committee, I'm going to ask Mr. Dingell, would you like to make an opening statement? Mr. Dingell is chairman of the full committee.

Chairman Dingell. Mr. Chairman, the opening statement I have is an excellent one. I would like to have it inserted in the record, please.

Mr. Stupak. without objection.

Chairman Dingell. Mr. Chairman, thank you for providing accommodations for this hearing. Mr. Ensminger, welcome. I am pleased we are seeing you again. How long ago was it that we first met, you and I?

Mr. Ensminger. Spring of 2004, sir.

Chairman Dingell. Well, I told you at that time we would approach this matter, and we will. I want to say that we will pursue it, not only for you and your loved ones but also for all of the others.

I find myself somewhat troubled that the military--and I was an infantry man in World War II--doesn't adhere to the maxim that the Marine Corps has, and that is that the Marines take care of their own. When I was in the infantry we also tried to take care of our own, too.

I would make the observation that we're not only going to pursue the situation with regard to the Defense Department, but we're also going to pursue the situation with regard now to EPA where there is some curious behavior going on which involves lack of enthusiasm for pursuing this matter.

CID agents being used as drivers and personal bodyguards for the Administrator rather than investigating important environmental crimes, which they would do, interestingly enough, under legislation that came out of this committee, of which I was one of the principal authors.

I want to say, we will find out why the Navy balked at funding health impact studies, why the Marine Corps delayed in initiating these studies, and why the Marine Corps has failed to properly produce documents on many occasions necessary for health impact studies. And also why the Navy failed for years to close down a contaminated drinking water system despite knowledge of such contamination and the risk that it imposed to our military personnel.

Bad enough to have our people shot at over there in Iraq without having the Department for which they work engage in the kind of practices which we see here, which have the kind of brutal impact upon military personnel and patriotic Americans and their families who are trying to serve their country.

So, Mr. Chairman, I commend you for what you are doing. I welcome our witnesses, and I would just make the observation, we've had some comments from some of the departments, particularly the EPA. They might not be as cooperative as we would like, and I'm going to remind them, Mr. Chairman, as we always choose to, that they can cooperate two ways: One is pleasantly, and one is painfully. And we're going to leave the choice to them, and I would urge them to take the more pleasant choice.

Mr. Chairman, thank you.

[The prepared statement of Mr. Dingell follows:]

Prepared Statement of Hon. John D. Dingell, a Representative in Congress from the State of Michigan

Mr. Chairman, thank you for holding this critically important hearing. The sorry treatment of the wounded at Walter Reed Hospital was a national scandal and so is the treatment of the Marine casualties of Camp Lejeune's poisoned water.

Although the drinking water contamination, which is the subject of this hearing, happened decades ago--the victims of that contamination continue to suffer both physically and emotionally.

They suffer the ill effects of exposure to the toxic

water; they suffer watching their babies get sick and die; they suffer waiting decades for scientific studies; and they suffer from the apparent mean spirit, penny-pinching, and indifference of their formerly revered commands, the U.S. Marine Corps and Department of Navy.

It is hard to believe, also, that to this day, former Marines and their families have not been notified that the water they drank at Camp Lejeune was carcinogenic--a fact that our Government has known for decades.

Indeed, the members of our first panel--retired Master Gunnery Sergeant Jerry Ensminger, Dr. Michael Gros, and Mr. Jeff Byron--each served at Camp Lejeune and, along with their families, consumed the poisoned water for years, but they did not learn of the contamination until 1997, 1999, and 2000, respectively. Each has a story of tragedy and courage to share with us, and I deeply appreciate their appearance before us today.

I welcome also agency representatives from the Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry who will help answer some of the tough questions about what may be one of the largest contaminated water cases in our country's history.

In particular, I want to welcome Special Agent Tyler Amon of the EPA's Criminal Investigations Division who single-handedly conducted an extensive criminal investigation of this matter. His work offers insight into this tragedy and exemplifies the excellent work CID can do if allowed to do its job.

Almost 20 years ago, I sponsored the legislation that provided EPA criminal investigators with law enforcement powers so they could more effectively carry out their duties. Unfortunately, in the course of conducting our inquiry, we have learned that CID may not have the resources or leadership to do its job. As you recall, the Pollution Prosecution Act of 1990 required a dramatic increase in the number of EPA agents assigned to CID. A dozen years after this requirement took effect, EPA still has not met this requirement.

In addition, I am concerned that of those CID agents who are supposed to be conducting important environmental crimes investigations, a large number of them are being used as drivers and personal bodyguards for the Administrator or assigned to do homeland security work that appears duplicative of what the FBI is already doing.

These are but a few of the things we are hearing, Mr. Chairman, and I hope you will consider looking further into this matter. Otherwise, this may be the last time we see such excellent work coming from agents such as Mr. Amon.

Finally, I welcome our distinguished Department of Navy and Marine Corps officials. I sincerely hope these officials can explain some of the very troubling evidence that this committee has reviewed:

Evidence that the Navy balked at funding health impact studies--despite statutory requirements that Department of Defense fund such studies;

Evidence that the Marine Corps delayed initiating these studies over concerns about bad publicity;

Evidence that the Marine Corps repeatedly failed to produce documents necessary for the health impact studies; and

Evidence that the Navy failed for years to close down a contaminated drinking water system despite knowledge of contamination.

The Marine Corps takes great pride in its maxim, "Marines take care of their own." But if this principle is to be anything but an empty slogan, the Corps needs to do more to notify all former Lejeune residents of their possible exposure and provide prompt and adequate medical coverage to them and their families.

Mr. Chairman, I thank you for your recognition.

Mr. Stupak. Thank you, Mr. Dingell. Ms. Solis, opening statement.

Ms. Solis. Thank you, Mr. Chairman, for giving me the opportunity to be here with you. I want to commend you for having this hearing. I recall very vividly the last time we had our witnesses that are here today speak to us. And at that time, I felt it was a very compelling argument for us as a committee to delve into why it is that DoD and EPA have not

really been held accountable and been more transparent in their deliberations. And thank goodness that we have a new direction now, and we are trying to take hold of this discussion and debate and trying to get to the real facts about what is happening.

I have a bill that's looking at perchlorate water contamination, which is due to rocket fuel, a little different from what you are discussing here today, but nevertheless again the DoD has failed to work in cooperation with EPA to really get at why this is happening, to provide cleanup funds, and to make sure that families, first and foremost, are taken care of. I know that you have very compelling information that we have heard before and that you have restated here, and I just thank you for being here. And as our chairman of our committee says, Mr. Dingell, we will get to the bottom of this. So thank you.

Mr. Stupak. Mr. Inslee, I take it you are waiving your open?

Mr. Inslee. Yes, thank you, Mr. Chairman.

Mr. Stupak. I thank all members, and I realize we will go back and forth. We will begin questioning of 5 minutes each. I will begin the questioning. Mr. Ensminger, in your written testimony, you state that a Special Agent Tyler Amon informed you that he had recommended charges against certain individuals based on the EPA's criminal investigation regarding water contamination at Camp Lejeune. Can you elaborate further on that?

Mr. Ensminger. It was during a telephone conversation with the agent several weeks ago. And I asked him about these certain instances that we have discovered in these documents where either these people had identified the fact that ATSDR had been provided this incorrect data and had never done anything to correct it. If this had been an accident, I asked him, then why didn't they voluntarily correct it? Why did they continue to just allow this to go on? What these people did, the Marine Corps, they have a Web site, and they have a chronology on that Web site. What they did was very quietly make a new entry on their chronology which corrected the error and never notified the investigating agency, which was ATSDR. And I asked the agent about that. And then I found e-mails from 1999, where a local media outlet in eastern North Carolina, channel 12, was doing a story, a three-part story covering the water contamination on the base.

The public affairs officer, a Major Scott Jack, made the reporter submit his questions in writing. There was five of them. And then the major worked up answers for those questions and then he shotgunned them around to several different people aboard the base that were involved in this. One of them was a Mr. Scott Brewer, who worked at Camp Lejeune's environmental management department. The major sent these questions with his answers around at 7:09 a.m. in the morning. By 12-something p.m. he received an e-mail back from Mr. Scott Brewer, which took the answer to question No. 3 which the public affairs officer had the truthful answer to, where he stated that the Tarawa Terrace water system remained in operation until March 1987. Mr. Brewer completely changed his answer and said that two contaminated wells at Tarawa Terrace were taken off line, and since that time, Tarawa Terrace has been provided their drinking water from the Holcomb Boulevard water system.

And I asked the agent, I said this was no accident. I said this was deliberate. This man took the truth and turned it into a lie. I said and that's not a crime? And he said, hey, Jerry, he said, I didn't say I didn't recommend any criminal charges. And he said but it was deemed by the Department of Justice that the charges that I did recommend could not be successfully prosecuted in Federal court, so they were dropped.

Mr. Stupak. Did you ever receive any notification from the Marine Corps about the water at Tarawa Terrace? That is where you were living, right?

Mr. Ensminger. Sir?

Mr. Stupak. You were living at Tarawa Terrace?

Mr. Ensminger. Yes, sir.

Mr. Stupak. I think Dr. Gros said 1999, Mr. Byron said 2000. Did you ever receive any notification?

Mr. Ensminger. No, sir. I was not there at that time. I was gone.

Mr. Stupak. But after that, they didn't follow you? You were in the Marine Corps for 24 years, Right?

Mr. Ensminger. Yes, sir. No. I never got anything.

Dr. Gros. I don't recall ever receiving anything.

Mr. Stupak. You never received anything? Your son was part

of a study in 1999?

Dr. Gros. I was notified in 1999, but we lived there from '88 through, yes.

Mr. Stupak. Notified of your son being the subject of the study?

Dr. Gros. Correct.

Mr. Stupak. No information that place you lived in at Camp Lejeune was being investigated for contamination?

Dr. Gros. That was the first time I heard of that.

Mr. Stupak. Mr. Byron, yours was 2000?

Mr. Byron. Sir, I was there until June 1985, and supposedly a letter had come out from the base commander----

Mr. Stupak. In 1985?

Mr. Byron. Yes, sir, to the residents of Tarawa Terrace. But my daughter was being born with multiple birth defects at the exact same time, so I don't remember getting that. The way I found out about that document was through the Freedom of Information Act. And that was after 2000. That is the first time.

Mr. Stupak. So 2000?

Mr. Byron. 2000 was the first time.

Mr. Stupak. Dr. Gros, your disability is based upon your service to the military?

Dr. Gros. Based upon my military service and my disease.

Mr. Stupak. But yet you are not included in any study?

Dr. Gros. No.

Mr. Stupak. So that they will put you on a disability based upon drinking the water at Camp Lejeune, but they won't include you in the study determining the health effects of the water at Camp Lejeune?

Dr. Gros. That seems correct.

Mr. Stupak. OK. My time is up. We may come back for another round of questioning. I turn to Mr. Whitfield for questioning.

Mr. Whitfield. I want to thank all three of you for taking time to be with us today on this important issue. And your testimony was certainly quite moving. And I noticed that in the 2003 report, the ATSDR stated that they determined that exposure to volatile organic compounds in on-base drinking water was unlikely to result in cancer and non-cancer health effects in adults. Now Dr. Gros, of course you went to medical school. And are you familiar with that 2003 report of ATSDR?

Dr. Gros. I recall reading that, and at the time I could not believe that when I read that sentence.

Mr. Whitfield. And Mr. Byron, had you read that report?

Mr. Byron. Yes, I have read that report, sir.

Mr. Whitfield. And Mr. Ensminger, you read that as well?

Mr. Ensminger. Yes, sir. ATSDR, the people at the Department of Health Assessments and Consultations, if the committee would just take some time and pull a bunch of the Public Health Assessments that have been done by ATSDR where these very same chemicals were identified, it is the same wording every time. Only it is changed around, modified a little bit. But it always has the same meaning. No harm, no foul. And the way these people act, you would think they would be serving this stuff on the drink bar at McDonald's.

Mr. Whitfield. Yes. Mr. Ensminger, in your testimony you had mentioned specifically that DoD had been notified by three separate laboratories of the problems with the drinking water at Camp Lejeune. Do you remember the time frame of those lab reports that were given to DoD?

Mr. Ensminger. LANTDIV, which is the Atlantic Division of the Naval Facilities Engineers out of Norfolk, came down and did a composite water sample on 1 October 1980. The composite water sample was water from eight different systems combined into one sample. And they sent that off to an analytical laboratory. The results of those samples, with six clean systems included in it, exceeded the standards for today for some of the VOCs. That was one. Second, the U.S. Army's Environmental Hygiene Team had been brought to Camp Lejeune to start testing the water for the TTHMs, which had come into effect, the standards for them.

They identified multiple times and told Camp Lejeune how to test for this stuff, which was with the gas chromatometer, mass spectrometer system, the GCMS, told them repeatedly they needed to test for organic hydrocarbons, chlorinated hydrocarbons. Finally, the laboratory chief wrote it in parentheses, solvents, with exclamation points. And then in 1982 Grainger Laboratories from Raleigh, North Carolina, a State-certified laboratory, the very same people that wrote the letter on 10 August 1982 to the commanding general, stating that this stuff

was more important from a health standpoint than what they had sent the water in to be tested for. They did nothing. And on the Marine Corps chronology these people say, well, we knew we had NACIP, which was a program to identify contaminants. They said, well, since we knew they were coming, we pondered this thing for a year-and-a-half, mind you, how we were going to take care of this.

Mr. Whitfield. OK. So it has been documented that there were at least three labs that gave them specific information about a problem with the drinking water. And the first one was October 1, 1980, and then the last was 1982, and then somewhere in-between?

Mr. Ensminger. Well, the Grainger Laboratory, there are multiple analytical results after 1982 all the way through, up through 1984 that identify these chemicals and the presence in the water, and each time they found them they annotated it.

Mr. Whitfield. My point is as early as 1980 they were aware or should have been aware.

Mr. Ensminger. Yes, sir.

Mr. Whitfield. And what years did you live at Camp Lejeune.

Mr. Ensminger. I lived at Camp Lejeune multiple times, sir.

Mr. Whitfield. When Janey was born.

Mr. Ensminger. From 1973 through 1975 my wife spent her first trimester of the pregnancy with Janey at Tarawa Terrace. And then I was at the time in drill instructor school at Parris Island. When I finished DI School, I was transferred, and we left there December 20, 1975.

Mr. Whitfield. And Dr. Gros, what years were you there?

Dr. Gros. July 1980 to July 1983.

Mr. Whitfield. And Mr. Byron?

Mr. Byron. I was there approximately February 1982 to June 1985.

Mr. Whitfield. OK. And you had mentioned, Mr. Byron, in your testimony that, at page 29, that the GAO did not present the document in its entirety.

Mr. Byron. Yes, sir. I have the document right here.

Mr. Whitfield. Which document is that?

Mr. Byron. That is the notice to residents of Tarawa Terrace. It is kind of fuzzy, but it is definitely dated April 1985. It looks like April 30. My daughter was born April 27, with birth defects, that same year.

Mr. Whitfield. OK. And what was lacking in this notification?

Mr. Byron. The actual what was missing was the body of the information that should have been provided to the residents. And what they were more concerned with, like I said, I can read it to you. It says, until, however, daily use consumption must be reduced significantly. You are the only ones who can make this happen.

I solicit your cooperation and assistance and implementation of the following water use restrictions. Reduce domestic water use. Don't let water run while washing, shaving, brushing teeth, et cetera. Wash clothes only when you have a full load. Flush toilets only for sanitation purposes. And this is the one that I really am concerned with, store cold water in refrigeration or for drinking. So they want me to store poisoned water for my children to drink. But they don't spell out that--No. 1, it says that these are--they found minute trace amounts of several organic chemicals. 1,580 parts per billion is not minute or trace.

I take offense to that personally, because I lived there at the time, and GAO tried to represent that it's 158 parts per billion versus 1,580. And once I corrected that they also put that in their appendix still at 158 parts per billion. They didn't do their homework.

Mr. Stupak. Mr. Byron, if I may, I am going to have one of our clerks grab that document from you, and we will make a copy so we have it for our committee.

Mr. Whitfield. And my time has expired. Thank you.

Mr. Stupak. Mr. Inslee for questions?

Mr. Inslee. Thank you. Mr. Byron, what was the document, what was the date of the document you were just reading?

Mr. Byron. The document it looked to me----

The Clerk. April 30, 1985.

Mr. Stupak. April 30, 1985.

Mr. Inslee. In your view, speaking from your position, what would you suggest should be a requirement for notification for people in those circumstances? Now you have told us essentially they described this as quote, trace amounts, in the document they gave a resident.

Mr. Byron. Yes, sir. They also called it organic chemicals instead of saying volatile organic chemicals. The word volatile would have clued me in immediately if that document had showed up at my home. And it probably would have clued me anyway, just the fact that it said chemicals.

Mr. Inslee. So what do you think should be our standards either in the Marine Corps or Environmental Protection Agency or any other----

Mr. Byron. The standard at present is 5 parts per billion. So if it exceeds 5 parts per billion, I believe governmental officials, military and civilian, should be held responsible for not notifying individuals. They went 15 years before a letter came to my house, which looked like junk mail by the way. I have it here. The front of this letter, this document it says nothing official from the Government on it.

Mr. Inslee. What does it say?

Mr. Byron. It says NORC, University of Chicago National Opinion Research Center, 3050 Finley Road, Downers Grove, IL, 60515. Please forward. Address correction requested.

I only lived two places the whole time. It doesn't say anything about being an official document from the Government.

Mr. Inslee. It seems to me that under these circumstances, the Government ought to have some protocol of language it uses so that a person will understand that there is an enhanced health risk associated with this, something like either a higher health risk or danger or toxic information enclosed or something to that effect.

Mr. Byron. That would have helped.

Mr. Inslee. Would that make sense to you?

Mr. Byron. Yes, sir, it does. And that would have helped.

Mr. Inslee. I hope that we are going to try to find the right mechanism of doing that to have this not happen again. I have to tell you this is so disturbing, after the Tillman incident to have this continued failure is very disturbing. Yes.

Mr. Ensminger. Yes, Congressman, I have found discussions, internal e-mails at Camp Lejeune between Camp Lejeune and Headquarters Marine Corps where they systematically changed the wording about these chemicals to volatile organic compounds to make it sound better. They have been playing a game. I mean it was a game of minimization.

Mr. Inslee. Dr. Gros, you said that your disability is associated with this, but you are not included in any of the studies. I just can't comprehend how that could happen. Do you have any explanation for it? Is it a glitch or is this programmatic failure or what?

Dr. Gros. Well, when we were facing the enormity, the financial enormity of the transplant, losing my practice, we were looking at every possible source of help we could find. I visited with my representative, Representative Kevin Brady at the time, and went with a toxicologist and my wife. And we had prepared a dossier and gave a presentation of what had happened. And he was impressed that this was a problem. He also saw the ATSDR documents, which had shown that they were admitting that the water was highly contaminated. And he immediately expedited my trip to the VA in Houston. And after that, I was declared 100 percent service-connected disabled. I don't know how that process comes about. But I was certainly happy to have some help. And it has been very useful for pharmacy items. However, some of the more expensive things, the bone marrow transplant was refused by the VA. And some of the more expensive items like photopheresis and hemodialysis, I had to be dialyzed for 6 months for temporary renal failure, and I still have chronic renal failure. That funding for that has been very difficult to obtain. There is a real problem over there with----

Mr. Inslee. But with a medical background, how could you explain not being included in any of the screens, any of these studies?

Dr. Gros. That is a good question, Congressman. That's why I said when I saw that initial document, the health assessment in 1997, I just said oh, come on. I said this is a joke. I said just because you have thousands of people here that are going to be a little hard to find doesn't mean they shouldn't be studied.

Mr. Inslee. I saw in one of your testimonies I was reading you made reference to a movie, A Civil Action, another one was Erin Brockovich, that came out about some similarities to this situation.

Dr. Gros. Right.

Mr. Inslee. Do you have a concern that a concern about claims has led to some poor judgments here along the way by the various Government agencies or not?

Dr. Gros. Well, I definitely think so. It would seem that way. When you inquire about this, apparently there is a lot of defensiveness. I know Jerry has done a lot more of this inquiry than I have. I have been busy being sick and trying to get well. I don't have any time to work on the Base Commission at Camp Lejeune, and I don't live there, so Jerry could probably answer that question better than I can.

Mr. Ensminger. There are several e-mails, internal e-mails where they are discussing liability. And it was if not the No. 1 driving force behind the deceit---

Mr. Inslee. We just hope these agencies will be more concerned about your health than the claims prospects. We hope that will start. And we will try to do what we can. Gentlemen, thank you for your continued service to the country. You are doing it today. And we thank you for your many years of service. Thank you.

Mr. Stupak. Thank the gentleman. Do you have that chart back up there, Jerry? Mr. Inslee, I don't know if you were here when we introduced it earlier in the opening testimony there. It shows the different levels. You mentioned Woburn and Erin Brockovich. It is 267. It is 18,000 at some point at Camp---

Mr. Byron. May I make a statement there?

Mr. Stupak. Sure.

Mr. Byron. According to the GAO report, on table 3, where they are listing the levels of toxicity at Hadnot Point, I don't see 18,000 there. And that says February 7. And these readings are from the 4th and the 8th of February of the same year.

So I can't understand why GAO is reluctantly--by the way, this is the same table that they had 1,580 parts was listed at 158 during the draft report. So I gave them a copy of the document that shows the levels of toxicity, and 18,000 is not on there I see. And here is another thing concerning the GAO report. I don't understand why it wasn't possible to scan the original documents and show them in their true form so that members of Congress can make their own judgment, instead of having GAO try to convince them that there was some low levels of toxicity.

There are several places where footnotes are stated that the detection limit for the instrument used to analyze the samples was 10 parts per billion. Well, sir, that is not on that document. And every table that they show says that. And I challenge them to show me, other than one document, the Jennings document, which by the way they took out the detection limit column to where you could tell whether or not on your own and didn't need them to tell you how to read it, but this concerns me that they did not show the original documents in their original form.

And all these documents that I have in front of me were from Marine Corps Base Camp Lejeune and indicate high levels of toxicity. Yet when GAO shows their report, they are only interested in showing you those documents that show lower levels. And they even have levels of toxicity missing in their tables. So my personal opinion is that the Marine Corps Headquarters, whoever gave them the information, has tried to perpetrate a fraud here. And that, in my estimation, is criminal, because the American taxpayer is paying for the money for this report to Congress, and it should be accurate and concise, and not full of conjecture with legal ramblings on it looks to me to be a document that they might present in a legal matter later. And that is how it has been presented.

Mr. Stupak. Mr. Byron, if I may, the document we noticed to residents of Tarawa Terrace---

Mr. Byron. Yes, sir.

Mr. Stupak. On the bottom there is handwriting. We want to put it in as hard part of the record. But at the bottom here, there is handwriting that says "suggested no adverse effect. Recommended levels." is that your handwriting?

Mr. Byron. No, sir, that is not, but I do have a document that refers to that.

Mr. Stupak. I know. I just wanted to know if it was your handwriting.

Mr. Byron. That is not my handwriting, sir.

Mr. Stupak. Without objection, we will have this document of April 30th, 1985, be made part of the record. Thank you. I have to go to Mr. Walden here, and we can come back. Mr. Walden for questions.

Mr. Walden. Thank you, Mr. Chairman I want to thank our witnesses today, and all of you for coming forward. I know it is difficult from every perspective. I can't imagine, begin to imagine what you all have been through. But it is our job to make sure it doesn't happen again to anybody else. And those who are going through this elsewhere we need to help as well. My understanding, Mr. Byron, and we will get at this issue you have raised, because I have some datapoint issues of my own, is that the Marines did give the GAO all the information. Whether GAO chose to use it or not is a question we are going to get to. And that that 18,000 figure actually was apparently a sample taken after the well was closed. So we will get into all that, because I am concerned about some of the data as well.

Our staff followed up on some of the lists, and maybe we can put that chart up for a moment. There is an attachment that goes through various readings at the various facilities over the years. And when we probed to find out which were the worst cases we got this response back, indicating that of the top five that we were looking at. We came back and said, well, actually three of the datapoint sets were wrong for various reasons and two are correct. So it brings into, at least for this member of Congress, that the ATSDR's database may have bigger flaws than what we were looking at originally. I am concerned, too. They are doing an epidemiological study here, right? What happened at Camp Lejeune?

Dr. Gros. Just in utero.

Mr. Byron. Children in utero.

Mr. Walden. OK. And in stereo apparently there. And I guess the question I am going to have for the military later is given the extraordinary and awful circumstances you all have been through with yourselves and your children, are they doing epidemiological studies elsewhere?

Mr. Ensminger. Where?

Mr. Walden. At sites with contamination?

Mr. Ensminger. You mean at other sites?

Mr. Walden. Yes.

Mr. Ensminger. Not on adults, sir.

Mr. Walden. Adults or children. On anybody. Do any of you know?

Mr. Ensminger. As far as I know, and like I said before, every Public Health Assessment that I have seen come out of the Department of Health Assessments and Consultations at ATSDR, the wording is different, but it always means the same. No harm, no foul.

They don't hurt adults.

Mr. Walden. They do the health assessments, but I am talking about the epidemiological.

Mr. Ensminger. Sir, if DHAC kills the thing in the Public Health Assessment no studies get done. It is a dead issue at that point.

Mr. Walden. Literally.

Mr. Ensminger. Literally.

Mr. Walden. How does that make you feel?

Mr. Ensminger. Well, they constantly make the claim in there that there is not enough studies to relate to--based on exposures to these chemicals, but then in the next sentence they say, well, we don't recommend any study on this exposure either.

Mr. Walden. Dr. Gros?

Dr. Gros. Congressman, if I can make a statement, I am not an epidemiologist, but it would seem to me that with the number of people involved in this one incident that we could probably do a pretty darn good study if the will is there to do it. But that is the problem. As you had this incredible number of people that have been exposed over these years, they dispersed because of the nature of military personnel. When they retired they leave, they go all over the country and the world. But they still have Social Security numbers, they still pay taxes, I assume. They still are as findable as I was. When they wanted to do the in-utero study on my child they had no problem finding me. I was a phone call out of the blue. I was amazed. So they have a way of finding you.

Mr. Walden. Sure they do.

Dr. Gros. So I don't buy the argument that these people cannot be found to do a look back study or to examine.

Mr. Walden. You think a look back given your professional.

Dr. Gros. At least to get some sort of information certainly.

Mr. Walden. One of the things that deeply concerns me is that at Wurtsmith Air Force Base in October 1977, they first

detected TCE in the drinking water. And I am told that officials immediately took steps to identify the contaminated wells, and within 1 month began closing the contaminated wells. So by November 1977, they were closing the wells. Now contrast that with Camp Lejeune, where significant drinking water contamination was discovered in 1980 and 1982, but officials waited years before they identified the contaminated wells, and then closed them down in 1985.

Any of you, in all of your research, and obviously Mr. Ensminger, you have done incredible research, and we appreciate you bringing that to us and to the public, can you explain why the Air Force acted in a matter of a month and the Navy----

Mr. Ensminger. Sir, even the Department of the Navy did the same thing at another site. There was Warminster Naval Air Development Center outside of Philadelphia, Pennsylvania. 1979 they identified these same chemicals in water supply wells at that facility. They took them off line immediately. But we must have two different Departments of Navy and two different standards somewhere in the mix here.

Mr. Walden. What was the EPA standard at that time for these chemicals in drinking water? What did they say was safe or unsafe?

Mr. Ensminger. They had SNARL, sir.

Mr. Walden. Which means----

Mr. Ensminger. The GAO report stated that Camp Lejeune officials stated that the contaminant levels in the drinking water at the main part of the base had not exceeded the SNARLs at that time. They did, however, exceed the SNARLs at Tarawa Terrace for PCE. The GAO said they never exceeded the SNARLs. I have a memorandum written in August 1982 by the base quality control chemist, Ms. Elizabeth Betz, that states right there in paragraph 8.

Mr. Walden. Yes, sir.

Mr. Ensminger. Well 651 tested 3,400 parts per billion of TCE in the samples that were pulled on 16 January 1985. They didn't get them back until 4 February. And the 4 February sample--when they closed the well on the 4th of February, they pulled another sample that day, and the well was running, and it tested--they got the results back for that on the 7th of February. And it was 18,900 parts per billion of TCE, 8,070 per billion of DCE, 400 parts per billion of PCE, and 633 parts per billion of vinyl chloride. And, sir, this one well caused the levels of finished drinking water on that base, where they were pulling samples because of the fuel that had gotten in there, to exceed 1,000 parts per billion at the tap at an elementary school. One well. They had already pulled seven wells off line previously.

Only God knows what levels were in that water when three or four of these contaminated wells were pumping at the same time in conjunction with well 651. The highest recorded levels that had been found were 1,400 parts per billion.

Mr. Byron. May I make a statement? I have the document that Jerry has alluded to, August, 1982. And on paragraph 5 it says tetrachloroethylene at high doses----

Mr. Stupak. Exhibit No. 6 in that book, if anyone cares to look. It is exhibit No. 6.

Mr. Byron. Tetrachloroethylene in high doses has been reported to produce liver and kidney damage and central nervous system disturbances in human beings. EPA SNARLs for tetrachloroethylene is 2,300 parts per billion for one day, 175 parts per billion for 10 days, and 20 parts per billion for long-term exposure. Where I was living was 1,580 parts per billion PCE exposure at the time. And they tried to say through the GAO report that the individuals and environmental department at Marine Corps Base Camp Lejeune were not educated enough and were not informed enough by LANTDIV and NACIP. And I consider this a fraud. I don't believe that. I believe they were well notified. This document from the chemist at Marine Corps Base Camp Lejeune shows that they were well notified. And I think the GAO, like I said, is biased.

Mr. Stupak. No other questions?

Mr. Walden. My time has expired.

Mr. Stupak. Your time has expired, but go ahead.

Mr. Ensminger. You had asked earlier about standards and different standards. Sir, I found the BMID instruction, which is dated 25 August, 1972. And the subject is standards for potable water. I would like to point out to the Congressman subparagraph E of paragraph 5, where it outlines pollution. Now this is the Navy's own standard. As pollution as used in these standards means the presence of any foreign substance. And then

in parentheses it says organic, inorganic, radiological or biological in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water. That was in 1972.

Mr. Stupak. That is document No. 20 in the book, Mr. Gros, if you are looking for it. Let me ask this question, if I may.

Mr. Byron, any of your children apply for disability?

Mr. Byron. Through the VA, sir?

Mr. Stupak. Yes.

Mr. Byron. No, sir.

Mr. Stupak. Any suggestions----

Mr. Byron. On previous trips to Washington I have been to the Veterans Administration and spoke to Assistant Director Mark Brown, and he had advised me that before the Veterans Administration could get involved that it would have to go through the Armed Services Committee, and be basically giving them permission to take care of these individuals. And I am aware of no legislation at present that allows for that.

Mr. Stupak. There are 853 claims, I believe, being made. Are your children involved in any of those claims?

Mr. Byron. My children are involved in those claims, yes, sir.

Mr. Stupak. They are?

Mr. Byron. Yes, sir. Because I feel that the Marine Corps is negligent and responsible.

Mr. Stupak. OK. You said in your testimony, your daughter went to 57 visits in 30 months?

Mr. Byron. Yes, sir.

Mr. Stupak. Did they ever refer her off base to a children's hospital or----

Mr. Byron. No, sir, they didn't, but they did take blood tests. And after I was identified as a family--my one child to be part of the study--we got our medical records. And I had to ask for copies of my medical records before I left the Marine Corps, because my one daughter had been seen so many times.

So I am a very fortunate one of very few that has their medical records, because the base has said that many of those records were destroyed in storage somehow. But she was seen 57 times, and we were never recommended outside of base. But levels of her hemoglobin or whatever they check for were below the levels that were listed on the form. And no one notified us and no one took action. And 6 months later she came down with this bone marrow disease called aplastic anemia, which is the opposite of what Jerry's daughter has, but also to cure it requires a bone marrow transplant. Now she went into remission, so she never did require that, but our daughters also went through the bone testing that he is familiar with and that his daughter was crying in his ear about. And ours also experienced the same thing, where they took bone marrow samples from her hip.

Mr. Stupak. When you say your daughter was below the level, you mean indicative of a problem?

Mr. Byron. Of a problem, yes, sir.

Mr. Stupak. Not within the normal range.

Mr. Byron. Not within the normal range, yes.

Mr. Stupak. Mr. Gros, you were a doctor there at the base. In looking back now, was there any increased number of miscarriages or anything that you noticed?

Dr. Gros. That is a frequent question. But I don't know how to answer it, because we didn't have the big picture. We basically were working in the forest, surrounded with the trees. 240 deliveries a month, busy, busy clinic. We didn't have any inkling at the time that there may have been that type of a problem. I don't think that anyone ever brought that up as an issue. The pediatrics department certainly didn't alert us.

Mr. Stupak. All the women there are basically child bearing years, right?

Dr. Gros. Well, it is a very large population of young women, that is correct.

Mr. Stupak. And generally a healthy population.

Dr. Gros. Very healthy population. I would say that the incidence of abnormalities that you would frequently see with older moms, moms over the age of 35--they don't like to be called older moms anymore--but how should we say the more experienced mothers that have more kids, they tend to have a greater instance of genetic abnormalities. And we didn't see much of that in our population. I really don't think that it came out at the time. I think the pediatrics statistics would probably be more telling than what we saw as obstetricians.

Mr. Stupak. But your medical records for these patients

would document it if there was a miscarriage, would it not?

Dr. Gros. Correct. There is a log kept. In labor and delivery, usually most of the patients would have a D&C under sedation, and just to make sure there weren't any complications, and then there was a record kept of that. So we should have that record. I would think so anyway.

Mr. Stupak. One would hope so.

Dr. Gros. Yes.

Mr. Stupak. You had a question, Mr. Walden?

Mr. Walden. No.

Mr. Stupak. If not, I would like to thank this panel for their testimony. I know at times it has been very difficult. But without you, I don't think the story could get out about what we are trying to do here, not just Camp Lejeune, but any places throughout this country--DoD properties that have to be cleaned up. Mr. Ensminger?

Mr. Ensminger. I would like to inform you of one other issue. Well 65I, which was the highest contaminated well at Hadnot Point, was constructed in 1971 at the back corner of the base disposal yard. The back corner of the junk yard. And the Navy facilities engineers people did the site survey for the location and the construction of that well. And that lot had been in operation for some odd 30 years by that point.

Mr. Byron. Sir, may I make one last comment also?

Mr. Stupak. Sure.

Mr. Byron. I was quite concerned by reading the GAO report to find out that for the in-utero study for the Agency for Toxic Substances Disease Registry they had found a comparison group of individuals at Marine Corps Base Camp Lejeune of 548 children. It is my contention, and I believe everyone here, that those individuals were more than likely exposed because of their connection to the base. If they lived around the base and were military personnel, they went on base. If the women were pregnant at the time and drank from the water fountain, they were exposed in the first trimester. So birth defects and so forth might show up.

What disturbs me is that after being on the Citizens Advisory Panel of the Agency for Toxic Substances for 2 years that I had no idea that they had a comparison group until I read the GAO report. I don't know why that has occurred, and I think that should be a question asked by individuals of the ATSDR. But it does not lend itself to transparency. And in this case that is the most important thing, that we be able to determine that what is being told to us is the truth. And the reason that we are here is to stop this from happening at any other bases in the future. So thank you very much.

Mr. Stupak. Thank you. This panel is dismissed. Thank you, gentlemen.

I will call up our next panel, Major General Robert Dickerson, Jr., Commanding General at Camp Lejeune; Ms. Kelly Dreyer, Environmental Restoration Program Manager at the U.S. Marine Corps Headquarters; Ms. Pat Leonard, Director of the Office of Judge Advocate General, Claims Investigation and Tort Litigation; Mr. Thomas Sinks, Deputy Director of the National Center of Environmental Health, Agency for Toxic Substances and Disease Registry, ATSDR; and Frank Bove, senior epidemiologist at ATSDR; and Morris Maslia, environmental engineer at ATSDR. Would you all come forward, please?

As you know, it is the policy of the subcommittee to take all testimony under oath. Please be advised that witnesses have the right to be, under the rules of the House, to be advised by counsel during their testimony. Do any of you wish to be represented by counsel? If so, we need the name of your counsel. General? Anyone? No? Everyone's indicating no. So while you rise, I ask you to raise your right-hand, please.

[Witnesses sworn.]

Mr. Stupak. Let the record reflect everyone has answered affirmatively as to the oath. They are now under oath. And we will begin with opening statements. We will start to my left. General Dickerson, please.

STATEMENT OF MAJOR GENERAL ROBERT DICKERSON, JR., COMMANDING GENERAL, CAMP LEJEUNE

General Dickerson. Mr. Stupak and distinguished members of the subcommittee, thank you for the opportunity to appear before you and participate in this hearing regarding past contamination of two of Marine Corps Base Camp Lejeune's drinking water systems. We are here today because the health and welfare of our Marines and their families remains a top

priority. We continue to support and fully cooperate with the Agency for Toxic Substance and Disease Registry to determine if contaminated water aboard our installation harmed Marines and their families. In 1982 and 1983, two of Camp Lejeune's eight public drinking water systems were determined to be contaminated by two chemicals, trichloroethylene, TCE, and perchloroethylene, PCE, also known as tetrachloroethylene, commonly found in degreasing agents and dry cleaning solvents.

At the time, no environmental standards or regulations in regard to the use and disposal of TCE or PCE were in place. In fact, initial regulation of these volatile organic compounds under the Safe Drinking Water Act began in 1987 and 1991, respectively. Volatile organic compounds were first discovered in the Camp Lejeune drinking water in 1980, while a Navy contractor was conducting tests for trihalomethanes. It was determined that an interference chemical was present in the water at the treatment plant and tap. However, the type of chemical or source was unknown.

Base personnel continued to sample the water over the next several years, utilizing various laboratories. Sampling results varied, calling into question the validity of the test. In 1982, TCE and PCE were determined to be the interference chemicals, and in late 1984, the groundwater was determined to be the source. As data on individual wells was received, impacted wells were removed from service. In total, 10 drinking water wells aboard the installation were immediately removed from service. Subsequent investigation by the State of North Carolina revealed leaks from an off base dry cleaner had contaminated the wells near the Tarawa Terrace housing area, while on base sources contributed to the contamination of the Hadnot Point water systems. This unfortunate situation happened over 20 years ago. And while there are still large gaps of knowledge on potential health implications due to exposure to TCE or PCE today, these gaps were even greater back in the 1980's. What the Nation accepted as environmental standards and regulations 20 years ago has drastically changed as a result of scientific knowledge and awareness. Camp Lejeune has been investigated by the Environmental Protection Agency's Criminal Investigative Division and the General Accountability Office. Both investigating agencies reported that Camp Lejeune's response to the contamination was appropriate at that time and consistent with existing environmental standards and regulations. Additionally, the Commandant of the Marine Corps chartered his own expert panel to look at past activities, which also concluded appropriate actions were taken based upon the guidance and information provided by Federal agencies. We have relied on the expertise of ATSDR to determine whether or not the past contaminated water on our installation harmed our Marines and their families.

Although we are not part of the design or implementation of the ATSDR survey or study, we remain committed and fully support their efforts. Full access to personnel, infrastructure, installations and requested documentation was granted to ATSDR from the start and will be available for the duration of their study. Additionally, we act as a liaison with Federal and State agencies to insure ATSDR obtains all resources necessary to move forward with their work, ultimately bringing us one step closer to an answer.

In order to educate and communicate with family members and Marines that may have been exposed to the contaminated water, a robust communications campaign was initiated to encourage participation in the ATSDR survey. An official Web site regarding the Camp Lejeune water was developed with frequently asked questions, maps, press releases and advisories, as well as contact numbers and links for additional information. This Web site is currently in the process of being updated. To help better understand public exposure to TCE and PCE from drinking water and any potential health effects, the Marine Corps is funding a new effort by the National Academy of Sciences to conduct a comprehensive review and evaluation of all medical and scientific information available on the link between TCE and PCE exposure via drinking water and adverse health effects.

Ultimately, everyone is here today for the same reason, to determine whether or not our Marines and their families were harmed in any way by contaminated water. We fully complied with environmental laws and regulations, and we remain committed to working with ATSDR and other Federal agencies involved with the study. We must rely on the experts for the answers. We are pleased to answer any questions you may have.

Mr. Stupak. Thank you, General. Ms. Dreyer.

STATEMENT OF KELLY DREYER, ENVIRONMENTAL RESTORATION PROGRAM
MANAGER, U.S. MARINE CORPS HEADQUARTERS

Ms. Dreyer, Chairman Stupak, Congressman Whitfield, distinguished members of the subcommittee, thank you for the opportunity to appear before you and participate in this hearing regarding past contamination in two of Marine Corps Base Camp Lejeune's drinking water systems. My name is Kelly Dreyer, and I am an environmental engineer, and the Installation Restoration Program Manager At Headquarters Marine Corps. As the Installation Restoration Program Manager, my job is to establish Marine Corps policy and guidance on cleanup issues across the Marine Corps. In addition, I serve as a liaison between the Marine Corps and the Naval Facilities Engineering Command, which executes the cleanup program for the Navy and the Marine Corps, as well as other agencies involved in the cleanup program, particularly when issues cannot be resolved at an installation level. As General Dickerson stated, the health and welfare of our Marines and their families is very important to the Marine Corps. As part of the cleanup program, 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 conducted by the Agency For Toxic Substances and Disease Registry, ATSDR, to determine if there are any current or past health concerns resulting from past practices.

My significant involvement in the Camp Lejeune past water issue began in 1997, when the Public Health Assessment for Camp Lejeune was being completed by ATSDR. The Public Health Assessment concluded that adverse health effects as a result of the impacted water were unlikely in adults, but recommended a follow on study of children in the womb, the most susceptible population to the potential chemical impacts. At that time I participated in meetings between health scientists and the Department of Navy and ATSDR about how such a study might be designed. In 1999, the health study began as a survey to determine whether or not a statistically significant study population could be reached for a case control study.

In 2000, ATSDR requested assistance from the Marine Corps to reach additional participants for the survey. At that time, the number of participants was approximately 6,500. ATSDR needed over 12,000 for a statistically valid study. Over the next year, I worked with our Headquarters Marine Corps and Department of Defense offices to develop and implement a communications strategy, which included two administrative messages to all Marines, press releases to over 3,500 media outlets, searches of Marine Corps databases, and working with the Department of Defense Privacy Office to enable the release of manpower information to ATSDR. As a result of this effort, ATSDR closed the survey in January 2002, after reaching 12,598 participants. Since that time, I have been working with Marine Corps Base Camp Lejeune to provide information requested by ATSDR for their water model and study activities. Although ATSDR has had full access to all information, sometimes such information is difficult to locate due to the fact that the records requested are over 20 years old and may have been destroyed or because offices have moved around the base.

The Marine Corps recently hired a contractor to perform a comprehensive search of Camp Lejeune to provide a better confidence level that all relevant documents have been found. ATSDR has been provided access to all documents that were found during this search. In addition, we have been working with agencies outside of the Marine Corps to ask them to provide information that is under their control. I have personally spoken with numerous people who feel they may have been harmed by the impacted water. Their stories are emotionally compelling. That is one of the reasons why we continue to support and fully cooperate with ATSDR. We have funded the National Academies of Sciences study because we all have a common goal, to determine if the Camp Lejeune drinking water harmed any of our Marines or their families. I am also pleased to answer any questions you may have.

[The prepared statement of General Dickerson and Ms. Dreyer follows:]

Statement of Major General Robert Dickerson and Kelly Dreyer

Chairman Stupak, Congressman Whitfield, distinguished members of the subcommittee; thank you for the opportunity to appear before you and participate in this hearing regarding

past contamination of two of Marine Corps Base Camp Lejeune's drinking water systems. We are here today because the health and welfare of our Marines and their families remains a top priority. We continue to support and fully cooperate with the Agency for Toxic Substance and Disease Registry to determine if contaminated water aboard our installation harmed Marines and our families.

In 1982 and 1983, two of Camp Lejeune's eight public drinking water systems were determined to be contaminated by two chemicals--trichloroethylene (TCE) and perchlorethylene (PCE; also known as tetrachloroethylene)--commonly found in degreasing agents and dry cleaning solvents. At the time, no environmental standards or regulations in regards to the use and disposal of TCE or PCE were in place. In fact, initial regulation of these volatile organic compounds under the Safe Drinking Water Act began in 1987 and 1991 respectively.

Volatile Organic Compounds were first discovered in the Camp Lejeune drinking water in 1980, while a Navy contractor was conducting tests for trihalomethanes. It was determined that an interference chemical was present in the water at the treatment plant and tap; however, the type of chemical or source was unknown. Base personnel continued to sample the water over the next several years, utilizing various laboratories; sampling results varied, calling into question the validity of the tests. In 1982, TCE and PCE were determined to be the interference chemicals, and in late 1984, the groundwater was determined to be the source. As data on individual wells was received, impacted wells were removed from service. In total, 10 drinking water wells aboard the installation were immediately removed from service. Subsequent investigation by the State of North Carolina revealed leaks from an off-base dry cleaner had contaminated the wells near the Tarawa Terrace housing area, while on-base sources contributed to contamination of the Hadnot Point water system.

This unfortunate situation happened over 20 years ago and while there are still large gaps of knowledge on potential health implications due to exposure to TCE or PCE today, these gaps were even greater back in the 1980s. What the Nation accepted as environmental standards and regulations 20 years ago has drastically changed as a result of scientific knowledge and awareness.

Camp Lejeune has been investigated by the Environmental Protection Agency's Criminal Investigation Division and the General Accountability Office. Both investigating agencies reported that Camp Lejeune's response to the contamination was appropriate at that time and consistent with existing environmental standards and regulations. Additionally, the Commandant of the Marine Corps chartered his own expert panel to look at past activities which also concluded appropriate actions were taken based on the guidance and information provided by Federal agencies.

We have relied on the expertise of ATSDR to determine whether or not the past contaminated water on our installation harmed our Marines and their families. Although we are not part of the design or implementation of the ATSDR survey or study, we remain committed and fully support their efforts. Full access to personnel, infrastructure, installations and requested documentation was granted to ATSDR from the start and will be available for the duration of their study. Additionally, we act as a liaison with Federal and state agencies to ensure ATSDR obtains all resources necessary to move forward with their work, ultimately bringing us one step closer to an answer.

In order to educate and communicate with family members and Marines that may have been exposed to the contaminated water, a robust communications campaign was initiated to encourage participation in the ATSDR survey. An official Web site regarding the Camp Lejeune Water was developed with frequently asked questions, maps, press releases and advisories, as well as contact numbers and links for additional information. This Web site is currently in the process of being updated.

To help better understand public exposure to TCE and PCE from drinking water and any potential health effects, the Marine Corps is funding a new effort by the National Academy of Sciences to conduct a comprehensive review and evaluation of all medical and scientific information available on the link between TCE/PCE exposure via drinking water and adverse health effects.

Ultimately, everyone is here today for the same reason: to determine whether or not our Marines and their families were

harm in any way by contaminated water. We fully comply with environmental laws and regulations and we remain committed to working with ATSDR and other Federal agencies involved with the study. We must all rely on the experts for the answers.

We are pleased to answer any questions you may have.

Mr. Stupak. OK. Ms. Dreyer, I didn't think you were going to do an opening because you never submitted it to this committee. That is fine, but I would like your opening statement. And I want to make copies, so we have a chance to look at it, because I am glad you did make an opening, because we have many questions for you.

Ms. Leonard, you want to give your opening statement?

STATEMENT OF PAT LEONARD, DIRECTOR, OFFICE OF JUDGE ADVOCATE GENERAL, CLAIMS, INVESTIGATION, AND TORT LITIGATION

Ms. Leonard. Good morning. I am Pat Leonard, and I am the director of the Claims and Tort Litigation Division at the Office of the Judge Advocate General of the Navy. I am here to answer your questions about the administrative claims process under the Federal Tort Claims Act and how it relates to these claims. I know you have a copy of my statement. I am not going to read that to you, but I would like to offer some additional information for your consideration. As of this date, we have received a total of 853 claims that allege either personal injury or death as a result of exposure to contaminated drinking water while living or working on board Marine Corps Base Camp Lejeune. The majority of the claims are from family members of former service members stationed at Camp Lejeune.

Included in that total number are 115 claims from civilian employees who worked on board the base. My written statement describes the administrative claims process in more detail, but I would just like to add that these claims involve some very complex scientific and medical issues. It is the Navy's intention to wait for the ATSDR study to be completed in order to insure that we have the best scientific research available so we may thoroughly evaluate each and every claim on its own merits. We truly believe this approach is in the best interests of both the claimants and the Department of the Navy.

Mr. Stupak. That is your conclusion? OK.

Ms. Leonard. Yes, sir.

[The prepared statement of Ms. Leonard follows:]

Statement of Pat Leonard

The Department of the Navy, Office of the Judge Advocate General, Claims and Tort Litigation Division (OJAG Code 15), has been designated by the Secretary of the Navy as the office responsible for the adjudication of claims against the Navy and Marine Corps filed under the Federal Tort Claims Act (FTCA), as well as various other claims statutes. OJAG Code 15 also provides support to the Department of Justice (DoJ) and United States Attorneys for claims that result in litigation.

All claims alleging personal injury or death caused by contaminated drinking water at Marine Corps Base Camp Lejeune must be evaluated under the legal requirements of the FTCA. The FTCA is a limited waiver of sovereign immunity for claims against the Federal Government for personal injury, property damage, or death caused by the negligence of a Federal employee acting within the scope of his or her employment.

Administratively, the FTCA requires that a claimant first present a claim to the Federal agency alleged to have caused the injury before he or she may file a lawsuit against the United States.

The claim must be presented in writing within 2 years after the claim "accrues" (i.e., knew or should reasonably have known they were injured as a result of government negligence) or the claim is forever barred.

The claimant must allow the Federal agency at least six months to adjudicate the claim.

If the Federal agency does not pay or deny the claim within six months, the claimant may file suit against the United States. Alternatively, the claimant may also choose not to file suit and wait for the Federal agency to adjudicate the claim.

If the claim is denied by the Federal agency, the claimant must file suit within 6 months after the date of denial, or the suit is forever barred.

The Agency for Toxic Substances and Disease Registry (ATSDR), part of the Public Health Service, performed a Public Health Assessment pursuant to the requirements of CERCLA in 1997. ATSDR also conducted an Adverse Pregnancy Outcome Health Study in 1998. Although this research indicated that no health problems would be expected for adults, ATSDR could not rule out the possibility of an association between exposure to volatile organic compounds (VOCs) in drinking water at Camp Lejeune and adverse pregnancy outcomes. ATSDR has continued its study of former Camp Lejeune residents and is currently conducting an epidemiological study of children focusing on childhood cancer and birth defects. We have been informed this study is on-track to be completed in 2008.

To fairly adjudicate all claims based on available and appropriate objective information, we have decided not to adjudicate the claims until the ATSDR completes its study. Once completed, each claim will be independently adjudicated under the legal requirements of the FTCA to determine its merit.

In the meantime, while the scientific study is being conducted, we have been compiling information as claims are submitted. Each claimant receives a letter requesting specific information, including their medical records, as well as a survey to help ensure that we have all the information necessary for final adjudication.

The Navy's FTCA settlement authority is \$200,000 per claim. However, when there are multiple claims arising from a single incident and payment will likely exceed the Navy's settlement authority of \$200,000 in the aggregate, the Department of Justice must approve all settlements arising from the single incident. Therefore, once the claims are adjudicated, the DoJ must approve any payment if recommended by the Navy.

Again, it is very important to us, as well as the claimants, that we thoroughly analyze each and every claim utilizing the best scientific research available in order to fairly adjudicate them.

Mr. Stupak. Dr. Sinks, your opening statement, please.

STATEMENT OF THOMAS SINKS, DEPUTY DIRECTOR, NATIONAL CENTER OF ENVIRONMENTAL HEALTH, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, ATSDR, ACCOMPANIED BY FRANK BOVE, SENIOR EPIDEMIOLOGIST, ATSDR, AND MORRIS MASLIA, ENVIRONMENTAL ENGINEER, ATSDR

Mr. Sinks. Good morning, Mr. Chairman, and members of the subcommittee. I am Tom Sinks, Deputy Director of the Agency For Toxic Substances and Disease Registry, or ATSDR. Dr. Frank Bove, our senior epidemiologist on the Camp Lejeune investigation, is sitting next to me. And next to him is Morris Maslia, our senior water system modeler. As a father of three young children, even though I am 56, I have a 13-year old and 11-year old and a 4-year old, I just wanted to comment on the moving and compelling testimony of the earlier panel. And as someone who has seen their own daughter go through medical procedures, I certainly understand some of the pain and powerlessness you feel when your child is affected. Our current work at Camp Lejeune concerns selected birth defects and childhood cancers, and we are also exploring the feasibility of additional studies, including adults.

Effective today, former Camp Lejeune Marines and their families can find out their exposure levels to PCE by visiting the ATSDR Web site and entering the dates they lived in Tarawa Terrace housing. ATSDR is examining two Camp Lejeune drinking water systems that served family housing and were contaminated with PCE or TCE between 1968 and 1985. A third system was not contaminated. The contaminated wells were shut down by 1985, several years before the current EPA maximum contaminant levels were established. Dr. Maslia's models--from his models we are confident that finished water from the Tarawa Terrace system was contaminated with PCE for roughly 30 years, beginning in 1957 and into 1987. The maximum simulated PCE concentrations in finished water exceeded 180 parts per billion, or 36 times the 1992 MCL established by EPA.

There were approximately 83,000 people exposed to this water from 1958 through 1985. Dr. Maslia has not finished his work on the Hadnot Point system, which was contaminated primarily with TCE. One tap water sample there measured 1,400 parts per billion, but we know that levels in finished water ranged substantially. There were approximately a thousand

people exposed to Hadnot Point water from 1958 through 1985 who lived there. The third system supplied uncontaminated drinking water to families living at Holcomb Boulevard. We now know that housing in Holcomb Boulevard was built several years before the Holcomb Boulevard water system came on line in June 1972.

As a result, approximately one-fifth of the 56,000 people living in Holcomb Boulevard from 1968 through 1985 were likely exposed to TCE from Hadnot Point water. This discovery will not, and I repeat, not, adversely impact the current study, nor will it cause us to fail to include in the study any of the families or children who we collected information on. It does require us to reanalyze the completed study that has previously been published on adverse reproductive outcomes. That reanalysis will not begin until the current study is completed. In the meantime, we have placed an erratum notice on the ATSDR Web site and notified the journal that published the study of the error.

Camp Lejeune is unique for conducting an epidemiologic study of this type. The concentrations of TCE and PCE in the finished drinking water are extremely high. Thousands of people living in family housing were exposed to high levels of TCE or PCE. And importantly, thousands of others were unexposed. Our studies were intended to focus on the most vulnerable population, the unborn child. And we also had computerized birth certificates of over 12,000 live births on base. Finally, housing records were available that linked each family to TCE or PCE. We have contacted the parents of over 12,000 children who reported if their child was born with a birth defect or developed a childhood cancer of interest. Our team has confirmed the diagnosis of 57 of the 106 children who reported to us with conditions of interest. 42 additional children were either confirmed not to have the condition, parents refused to participate, or no medical records were available. This work is difficult. We are trying to accurately reconstruct systems and events as far back as 39 years ago. Nobody involved at the time could have foreseen the work we are doing today. Our work requires close collaboration with the affected families and individuals and agencies across DoD. I believe there is a shared commitment to accomplish this difficult task. Thank you.

[The prepared statement of Mr. Sinks follows:]

Statement of Thomas Sinks

Mr. Chairman and members of the subcommittee, I am pleased to provide testimony on behalf of the Agency for Toxic Substances and Disease Registry (ATSDR) regarding our activities at U.S. Marine Corps Base Camp Lejeune (Camp Lejeune) in North Carolina. I am Dr. Thomas Sinks, Deputy Director of ATSDR and of the National Center for Environmental Health (NCEH) at the Centers for Disease Control and Prevention (CDC).

I will briefly summarize ATSDR's mission and general experience in addressing trichloroethylene (TCE) and tetrachloroethylene (PCE) at Superfund sites, including contamination of drinking water sources and supplies. I then will focus on ATSDR's scientific activities in evaluating potential health effects of exposures to PCE and TCE contaminated drinking water at Camp Lejeune, including conducting health assessments and epidemiologic research, and convening panels to obtain input from experts outside the Agency and from other persons concerned about potential health effects of exposures at Camp Lejeune.

I must preface my remarks with an important point: Since ATSDR has not completed its current epidemiologic study, we have not yet determined whether there is an association between exposure to contaminated water and certain birth defects and cancers among children born between 1968 and 1985 to women who lived at Camp Lejeune during some portion of their pregnancy. However, I will discuss findings that were released earlier today concerning contamination of the drinking water supply at one of the three areas of family housing at the Base.

Background

ATSDR is a statutorily created Operating Division within the Department of Health and Human Services (HHS). Created by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), more commonly known as Superfund, ATSDR's role complements those of the Environmental Protection Agency (EPA) and other Federal agencies under

Superfund, by focusing on the health of people and the communities in which they live. Our work is framed into four functional areas: protecting the public from hazardous exposures, increasing knowledge about toxic chemicals, delivering health education about toxic chemicals, and maintaining health registries.

ATSDR is required by law to conduct a public health assessment (PHA) or its equivalent at each site proposed or listed on EPA's National Priorities List of hazardous waste sites. In a PHA, ATSDR evaluates releases of hazardous substances into the environment to determine if people are being or have been exposed to hazardous substances and, if they are being exposed, whether those exposures are at levels likely to be a health hazard. The PHAs also provide recommendations for eliminating or reducing harmful exposures. A PHA may also identify factual or scientific data gaps and make recommendations for additional actions such as health education, epidemiological health studies, disease registries, surveillance studies, or research on specific hazardous substances.

Under the 1986 Superfund Amendments and Reauthorization Act, HHS and the Department of Defense (DoD) are required to enter into a memorandum of understanding (MOU) regarding the manner in which ATSDR will carry out its responsibilities at DoD sites, and to establish a manner to transfer funds from DoD to ATSDR to fund these activities. Under the MOU, ATSDR sends an Annual Plan of Work to DoD each year, identifying planned work and funding needed for that work for the coming year.

ATSDR's primary health concern at Camp Lejeune involves potential exposure to drinking-water supplies contaminated with two common volatile organic compounds (VOCs): TCE and PCE. TCE is a colorless liquid which is used as a solvent for cleaning metal parts. Occupational exposure to TCE may cause nervous system effects, kidney, liver and lung damage, abnormal heartbeat, coma, and possibly death. Occupational exposure to TCE also has been associated with adult cancers such as kidney cancer, liver and biliary cancer, and non-Hodgkin's lymphoma. TCE in drinking water has been associated with childhood leukemia in two studies and with specific birth defects such as neural tube defects and oral clefts in one study.

PCE is a manufactured chemical used for dry cleaning and metal degreasing. Occupational exposure to PCE can cause dizziness, headaches, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death. Exposure to PCE-contaminated drinking water has been linked with adult cancers such as non-Hodgkin's lymphoma, leukemia, bladder cancer, and breast cancer.

Inhalation and ingestion are important routes of exposure for both TCE and PCE. Both chemicals are listed in the 11th Report on Carcinogens from the National Toxicology Program as reasonably anticipated to be human carcinogens. The United States Environmental Protection Agency (EPA) established Maximum Contaminant Levels for drinking water of 5 parts per billion (ppb) for PCE in 1991 and for TCE in 1987.

ATSDR has extensive experience related to TCE and PCE. The Agency has published Toxicological Profiles on both chemicals, and our Profile on TCE is included in our Case Studies for Environmental Medicine, a series of self-instructional publications designed to increase primary care providers' knowledge of hazardous substances in the environment and to aid in the evaluation of potentially exposed patients.

Camp Lejeune

Public Health Assessments: In 1989, the EPA placed U.S. Marine Corps Base Camp Lejeune and ABC One-Hour Cleaners, which is located very close to the Base, on its National Priorities List. Releases of chemicals from both the ABC One-Hour Cleaners and activities at Camp Lejeune contributed to contamination of the water supply system serving certain areas of housing at the Base. In August 1990, ATSDR completed a PHA addressing contamination from the ABC One-Hour Cleaners. This assessment found that PCE, detected in on-site and off-site wells, was the primary contaminant of concern. In 1997, ATSDR completed a PHA for contamination from the Camp Lejeune Base.

In these PHAs ATSDR determined that current conditions at the site did not present a current health hazard because the contaminated wells were no longer in use. However, ATSDR did identify three past public health hazards. Of those, the one we are focused on currently is the contamination of drinking water

systems serving several areas of family housing on Base, referred to as Tarawa Terrace, Hadnot Point, and Holcomb Boulevard. Tarawa Terrace was contaminated primarily by PCE and Hadnot Point was contaminated primarily by TCE. ATSDR also reported that Holcomb Boulevard, the third major system, was not contaminated, except for during a two-week period in late January and early February 1985 when the Holcomb Boulevard system was down for repairs and the area was served by the Hadnot Point system.

In 1997, ATSDR concluded that likely exposures to PCE and TCE were significantly below levels shown to cause adverse health effects in animal and adult human studies and therefore not expected to result in cancer or other health effects in adults. However, because scientific data relating to the harmful effects of VOCs on a child or a fetus were limited, ATSDR recommended conducting an epidemiological study to assess risk to infants and children from maternal exposure during pregnancy to the VOC-contaminated drinking water.

Health Studies: Following up on the recommendations in the PHA, ATSDR has undertaken two related epidemiologic studies, both of which focused on the health of children born from 1968 through 1985 whose mothers were exposed to contaminated drinking water at Camp Lejeune during their pregnancies. These dates were selected because 1968 is the first year for which computerized birth certificates from North Carolina are available, and in early 1985 contaminated water-supply wells were removed from regular and continuous service.

First Study: ATSDR's first study, completed in 1998, was based on information collected from the birth certificates of 12,493 live births on base. Housing records for families who lived on base were used to determine mother's residence during pregnancy and to assign VOC exposure categories based on our knowledge of contamination across the three drinking water systems. We identified an association between women who drank PCE-contaminated drinking water from Tarawa Terrace during pregnancy and their babies being born small for gestational age. This association was limited to those mothers older than 35 years of age or who had experienced two or more fetal losses. An additional finding was that baby boys born to mothers who drank TCE-contaminated water from Hadnot Point were also more likely than unexposed babies to be born small for gestational age.

Second Study: In its PHA ATSDR also identified as a priority the need to study the relationship between maternal exposures to TCE and PCE and the occurrence of several birth defects and childhood cancers, which would require information beyond that available in birth certificates. The current study began in the late 1990's and is ongoing. The study protocol for the study has been subjected to peer review by scientific experts outside of the Agency. The two primary components of the current study are to identify and confirm particular birth defects and cancers and to conduct water modeling to determine which housing units received contaminated water during what time period and the level or concentration of the contaminated water.

The study initially focused on neural tube defects (i.e., spina bifida and anencephaly), cleft lip and cleft palate, major heart defects, choanal atresia, and two forms of childhood cancers (all leukemias and non-Hodgkin's lymphoma). ATSDR contacted the parents of 12,598 children born during the period 1968-1985 to mothers who resided at the base anytime during their pregnancy to confirm mother's residence and determine if the child had one of the health conditions that are focused on in the study. Parents reported 35 children with neural tube defects, 42 with cleft lip and/or palate, 29 with leukemia or lymphoma, no children with choanal atresia, and 3 with a major heart defect (this condition was dropped because of the small number of possible case-children).

Since the initial phone interview, ATSDR has collected medical records to confirm the diagnoses of the reported cases. Fifty-seven children confirmed as having a condition of interest include 17 children with a neural tube defect, 24 children with a cleft lip or palate, and 16 children with leukemia or non-Hodgkin's lymphoma. An additional 42 possible case children were either confirmed not to have the condition,--refused to participate, or had no available medical records. The status for an--additional 7 children is still pending. As noted earlier, the information on birth defects and cancer does not, by itself, tell us whether these conditions are associated with exposure to contaminated water.

To obtain estimates of historical concentrations of PCE at Tarawa Terrace and TCE at Hadnot Point, ATSDR is using water-modeling techniques and the process referred to as historical reconstruction. ATSDR began these analyses in 2003. The historical reconstruction process for Tarawa Terrace is complete. Water modeling activities for the other water system, the Hadnot Point system, are expected to be completed later this year.

ATSDR's goal is to estimate monthly levels of contaminants in these drinking water systems from the early 1950's until the contaminated wells were shut down in 1985. The effort involves extensive information gathering (e.g., geohydrology, sources of contamination, drinking water well locations and pumping rates, contaminant transport and degradation byproducts, and water distribution system). The modeling effort also requires simulating the fate and transport of the contaminants from the pollution sources through the soil and into the ground water, to the drinking water wells, and finally to the water treatment plant and water distribution system that provides the water to the family housing units. After the historical reconstruction of both water systems is complete, the information on birth defects and cancers will be linked to the information concerning which housing units received contaminated water during what timeframes.

The historical reconstruction of the Tarawa Terrace system is summarized in an Executive Summary report we released earlier today. The results indicate that PCE-contaminated drinking water distributed to family housing units at Tarawa Terrace exceeded 5ppb, which in 1991 was established as the Maximum Contaminant Level, for the first time during the period October 1957-August 1958, with the most likely date of first exceedance being November 1957. The maximum PCE concentration in drinking water delivered to family housing units was estimated at 183 ppb in March 1984. During the period November 1957-January 1985, PCE levels in the finished water at the water treatment plant exceeded 5 ppb for every month except when the most contaminated well was off-line twice for repairs (a total of 4 months). The contaminated wells were removed from regular service in February 1985. Effective today, former Camp Lejeune Marines and their families can find out their estimated exposure levels to PCE and PCE degradation by-products, calculated through modeling, by visiting the ATSDR Web site www.atsdr.cdc.gov/sites/lejeune and entering the dates they lived in Tarawa Terrace housing. The executive summary of the analyses also is available at this Web site.

Once the historical reconstruction of both the Tarawa Terrace system and the Hadnot Point system have been completed, the monthly quantitative estimates of contaminant concentrations in each of these drinking water systems will be linked with the case-control interview data on birth defects and childhood cancers. ATSDR will analyze the data to determine if exposures to the drinking water contaminants are associated with neural tube defects, cleft lip/cleft palate, or childhood leukemia/non-Hodgkin's lymphoma.

Update of First Study: During the work conducted for the historical exposure reconstruction, ATSDR discovered an error in the exposure classifications used in its first Camp Lejeune study, the 1998 study of adverse birth outcomes. This may have affected the results of this study. The error was the result of a lack of information on the date the Holcomb Boulevard Treatment Plant began operation. The study assumed that the plant was operating during the entire period of the study, 1968-1985. However, as a result of the historical exposure reconstruction, the Agency has learned that the Holcomb Boulevard Treatment Plant did not begin operation until June 1972. Prior to June 1972, the Hadnot Point system provided drinking water to the Holcomb Boulevard service area. This means that many of the births during the period, January 1968-May 1972 that were classified as unexposed in the 1998 study were actually exposed in utero to drinking water contaminated with TCE and other solvents. ATSDR regrets the error that was made in the 1998 study, and plans to reanalyze the 1998 study using the monthly contaminant estimates from the historical exposure reconstruction. Utilizing the more detailed estimates will considerably improve the quality of the 1998 study.

Community and Expert Input: In response to public concerns that ATSDR's study was too narrowly focused since drinking water contamination may have caused adult cancers as well as non-cancer diseases among children and adults, ATSDR convened a scientific panel in February, 2005, to provide advice on

whether additional epidemiological studies on the health effects of exposures to contaminated water at Camp Lejeune should be conducted. ATSDR accepted panel recommendations, including recommendations to establish a Community Assistance Panel for Camp Lejeune, and to assess the feasibility of conducting a mortality and cancer incidence study and additional potential studies by evaluating DoD databases.

ATSDR also convened a panel on its approach to historical reconstruction of groundwater and finished water contamination at the Base. On March 28-29, 2005, ATSDR held an "Expert Peer Review Panel on Water Modeling" to assess and review water modeling approaches and activities at Tarawa Terrace, Hadnot Point, and Holcomb Boulevard. Panel members approved ATSDR's approach but made additional recommendations, which we adopted. They were unanimous in their recommendation that ATSDR conduct additional extensive data discovery to obtain all the information necessary to fully understand the historical operations of the water-supply systems. Panel members also recommended that the Agency undertake a rigorous uncertainty or probabilistic analysis and consider modeling PCE degradation by-products. Lastly, the panel recommended that a more simplified approach to water-distribution system modeling could be used (i.e., simple mixing model), unless we could definitively prove--using historical information and data--that there were lengthy periods (exceeding several months) when the Tarawa Terrace water-distribution system was interconnected with the Holcomb Boulevard water-distribution system. These recommendations were accepted by the Agency and were implemented.

Conclusion

In summary, ATSDR has an essential role in providing public health support to people and communities impacted by hazardous substances. ATSDR expects the study on the association between health effects and exposure to the drinking water contaminants to be completed in 2008. Our assessment of the feasibility of additional work is expected to be completed this year. On a personal note, my staff and I have truly enjoyed interacting with the former Marines who lived at Camp Lejeune. As an Agency, we take very seriously the trust placed in our organization by members of the public like these former Marines.

At this time, I am happy to answer any questions you may have.

Answers to Submitted Questions by Mr. Green

Question: Mr. Sinks, in your testimony, it states that the Agency for Toxic Substances Disease Registry (ATSDR) has conducted studies on children that may have been exposed to trichloroethylene (TCE) and tetrachloroethylene (PCE) at Camp Lejeune. Has ATSDR considered studying adults who may have been exposed to TCE and PCE at Camp Lejeune?

Answer: ATSDR's current and previous epidemiological studies at U.S. Marine Corps Base, Camp Lejeune have focused on the health effects to the fetus and child from maternal exposures to drinking water contamination because the fetus is the most vulnerable to these exposures and because there are only a very few studies that have evaluated the effects on the fetus of trichloroethylene (TCE) and tetrachloroethylene (PCE) exposures. Because of this gap in our scientific knowledge, and because the fetus is the most vulnerable to these exposures, ATSDR studied specific health effects in children that may be associated with maternal exposures to these drinking water contaminants. ATSDR is currently evaluating the feasibility of conducting a study of adult mortality and cancers among a cohort of Marines who were stationed at the base during the period when the drinking water was contaminated with TCE and PCE. The assessment of the feasibility of such a study will be completed by the end of 2007.

Question: In the studies that ATSDR has conducted, you have contacted the parents of children that have been exposed to TCE and PCE at Camp Lejeune. If you can contact those people to ask them to participate in a study and create a registry, then why not notify everyone who may have been exposed to water contamination at Camp Lejeune?

Answer: ATSDR does not have access to data on everyone who may have been exposed to water contamination at Camp Lejeune. The Department of Defense is the agency that may have data on this population. For the study ATSDR is conducting, we have been able to contact many of the parents of children whose mothers were on base during pregnancy. This sub-population does not cover the entire population of those who may have been exposed, but ATSDR does plan to provide study participants with the results of our findings.

Another aspect of the agency's work is conducting water modeling to determine which housing units at Camp Lejeune received contaminated water during what time period and the level or concentration of the contaminated water. ATSDR has posted to its Web site a summary of the findings from its historical exposure reconstruction work and also the full technical findings. These are available at www.atsdr.cdc.gov/sites/lejeune/watermodeling.html

We have publicized the availability of these data by issuing a press release, and we are working closely with the Community Assistance Panel to identify other methods of effective outreach to the affected community concerning ATSDR work. Similar outreach efforts will be undertaken for the study results when they are available.

Mr. Stupak. Dr. Bove, were you going to have an opening statement? Dr. Maslia?

Mr. Maslia. No.

Mr. Stupak. All right. Then we are going to move to 10-minute questions then. On this panel, we are going to do 10 minutes. I will begin. Dr. Sinks, did you say you are going to do an adult study? That's in the planning works for Camp Lejeune?

Mr. Sinks. Yes. Thank you. We have not committed to do an adult study. A decision was made to do the childhood study because the data gaps were greatest in that area. We wanted to look more closely at the most vulnerable population, and we had records to do that.

Mr. Stupak. I thought you said in your opening---

Mr. Sinks. We are doing a feasibility study right now.

Mr. Stupak. Feasibility study to do determine if there should be a study?

Mr. Sinks. To determine if we should or should not move ahead to do a study of adults. That is correct.

Mr. Stupak. And when you do your studies areas you are looking at what? From what year, 1968 to 1985?

Mr. Sinks. We define the study beginning date as 1968. Now that is for the children. And that was decided on the basis of the availability of computerized birth certificate records, so we wouldn't have to go back and contact all of the families before 1968 in order to determine who there might have been.

We cut the study off in 1985 because the information we had at that time was exposure had stopped in 1985.

Mr. Stupak. You are aware that these wells were used through 1987?

Mr. Sinks. Dr. Maslia's work with Tarawa Terrace shows us that there may have been some much lower contamination in the finished water from 1985 through 1987. I think you have a chart that shows that. It may be a little difficult to read, but the levels are significantly lower. These are not sampled.

Mr. Stupak. More than 5 parts per billion?

Mr. Sinks. A little more than 5. Possibly somewhere between 5 and 10, but certainly nowhere approaching the levels of 180 which we saw prior to 1985.

Mr. Stupak. So you don't dispute the fact that the wells were used up through 1987? But you are cutting the study off in 1987.

Mr. Sinks. Well I am not an expert. There were some wells used. The two primarily contaminated wells were shut off. I think one of them may have been used in a mixture for a short period of time.

Morris, if you want to answer that.

Mr. Maslia. Yes. The two primary contaminated wells known as TT-26 and TT-23 were shut down from continuous use.

Mr. Stupak. But used periodically after---

Mr. Maslia. If they have to obtain a water sample, you have to turn the wells on, so they would turn them on. There was a period in April that they turned TT-23 on for 7 hours, for 7 different hours but they were not used continuously. Those two wells were not used continuously. All the wells were shut down when the treatment plant was shut down in March 1987.

Mr. Stupak. OK. Dr. Sinks, I asked Dr. Gros about miscarriages. Have you looked at miscarriages during that period of time from 1968 to 1985?

Mr. Sinks. We did use adverse reproductive outcomes using birth certificates, so we limited that first study to a study using available vital statistics.

Mr. Stupak. So the answer is no, you didn't look at miscarriages?

Mr. Bove. We did look at fetal deaths. Using fetal death certificates we found 83 fetal deaths during that period. We expected, based on the ratio of fetal deaths to live births, about three times more than that. So the fetal death certificates from North Carolina were seriously underestimating or under-ascertaining the fetal deaths occurring in that population. I don't know why that was the case. That would be something for North Carolina to answer.

Mr. Stupak. How many fetal deaths versus how many women did you look at?

Mr. Bove. We decided not to pursue the fetal deaths because we saw that we were under-ascertaining them by a factor of I think 3. We didn't know why we were seeing so few fetal deaths in this population, OK, so if we did a study we would have to figure out why, for example, the fetal death rate was so slow.

Mr. Sinks. Based on a proportion of live births?

Mr. Bove. That is based on a proportion of fetal deaths to live births. You expect a certain portion of fetal deaths given the number of live births in a population.

Mr. Stupak. Looking for a number of fetal births compared to the rest of the country, not necessarily when you have a large concentration in a population, why wouldn't you look at another part of the country?

Mr. Bove. In the study, they look at adverse reproductive outcomes, and in the current study too. They are looking at comparing those exposed at the base to those unexposed at the base. That's the idea. We want to see if contamination levels are associated with these outcomes. So if you compare it to some other base, we'd have to get birth certificates and fetal deaths from another base. It's not clear--we would have to figure out whether there were exposures occurring at another base. It made sense to limit the studies to Camp Lejeune.

Mr. Stupak. How about the 12,598 children that were born between 1968 and 1985? Did you take into consideration if those children died?

Mr. Bove. Did we take into consideration the children died?

Mr. Stupak. Right. You said you looked for birth defects and that, from 1968 to 1985.

Mr. Bove. Right. Some of those children did die.

Mr. Stupak. What percentage?

Mr. Bove. I will have to get back to you on that one.

Mr. Stupak. More than the national standard?

Mr. Bove. No. We didn't look at that.

Mr. Stupak. In your study when you make these comparisons, these conclusions, you are comparing against different DoD bases?

Mr. Bove. No. We're comparing exposed--mothers exposed at Camp Lejeune to mothers unexposed at Camp Lejeune. What you want to do in an epidemiologic study is to have two comparable groups, an exposed and an unexposed, so they are similar in all respects, if you can, except for the exposure.

Mr. Stupak. The only way you determine whether exposed or unexposed is whether they had water from these wells.

Mr. Bove. Right.

Mr. Stupak. So if they are swimming at the Tarawa Terrace swimming pool but they didn't drink the water there, then you are unexposed?

Mr. Bove. Right.

Mr. Stupak. But if you are a pregnant lady, you certainly could be exposing your child while you are in that swimming pool, is that right?

Mr. Bove. There are other exposures too. You pump gas. There are all kinds of exposures. What you try to do is compare two populations that are similar, OK, and the population in Tarawa Terrace and the population of Holcomb Boulevard----

Mr. Stupak. Why don't you just----

Mr. Bove. Can I finish?

Mr. Stupak. Sure. But you don't get 10 minutes to answer because that's all I have to question.

Mr. Bove. One second. The populations there are similar, we hope. And this is how epidemiologic studies are done. We hope they are similar in all other risk factors except for the

exposure of interest.

Mr. Stupak. What's the percentage of birth defects at Camp Lejeune of those 12,598 compared to the rest of the country?

Mr. Bove. We don't have the data on all birth defects at Camp Lejeune. We just focused on those birth defects we were interested in based on previous studies.

Mr. Stupak. So if someone says birth defects are 15 times greater than the rest of the Nation, you have no way to dispute that.

Mr. Sinks. May I just interject here on a couple of things? We do have information on the numbers of children who reported to us with birth defects from those 12,000, because in fact we went out and interviewed all of those parents. We collected that information. We did have priorities in terms of which were the conditions we were most interested in because of previously published scientific studies. Those were the ones we focused on.

We did find there were a couple conditions we were interested in where we had insufficient numbers of children who were born with those birth defects; and in fact, one of those conditions we actually saw less than we would have expected based on national data.

What Frank was saying regarding fetal deaths as a proportion of total live births is not a comparison internal to Camp Lejeune. That's a comparison based on what nationally----

Mr. Stupak. I realize that. I guess what I'm trying to say, if you are at Camp Lejeune, how can you sit here and say this person was exposed, this person was not exposed? They go over to someone's house and not have a drink of water?

Mr. Sinks. Let me just say this. There is no question that there are other folks at Camp Lejeune we're not studying who were exposed. And if your question is essentially one of have we included in our studies everybody who was potentially exposed, the answer is no.

But part of that answer has to do with how do we do epidemiologic studies? How do we do it in a timely way? Because I don't think you want us to be here in 5 years and----

Mr. Stupak. You are telling us you won't have that report done until next year now, right?

Mr. Sinks. We will probably have it done, I'm hoping, early 2008. It is a difficult thing to do. The water modeling is a particularly difficult thing to do, and the Hadnot Point system is what we have to do.

Mr. Stupak. Of these 12,598 children born between 1968 and 1985, you've talked to all these parents?

Mr. Sinks. Well, I haven't personally. But the people working for us have interviewed--was it the total? Was that 12,000?

Mr. Stupak. So someone talked to Mr. Gros, then, who was in the first panel?

Mr. Sinks. I believe all three of them had been contacted by us. Let me just point out, that's why they found out about the issue.

Mr. Stupak. All right.

General Dickerson, I assume your opening statement that DoD refused to fund between 1998 and 2000, that's our activities at Camp Lejeune. Why was that, do you know? You have to use your mike, please, sir.

General Dickerson. I'm sorry sir. The 1998 funding for ATSDR activity provided by the Department of the Navy was handled by the Navy because it goes to the Secretariat level for the defense environmental restoration program moneys. After that was not funded--and the Marine Corps has stepped up and it's funded it out of our accounts right now--we are not at the Secretarial level.

Mr. Stupak. So you have no idea what happened between 1998 and 2000?

General Dickerson. No, sir. I do not.

Mr. Stupak. Do we have to get the Secretary of the Navy in here to answer that question then?

General Dickerson. His staff has the background on how that was appropriated. Yes, sir.

Mr. Stupak. OK, we can do that. My time has expired.

Mr. Whitfield for 10 minutes. I think we'll be coming back.

Mr. Whitfield. Well, thank you for your testimony.

Dr. Sinks or Ms. Leonard, either one. On the earlier panel I referred to the 2003 study of ATSDR in which it said that ATSDR has determined that exposures to volatile organic compounds in on-base drinking water is unlikely to result in cancer and noncancer health effects in adults.

Now, how do you all come to that conclusion?

Mr. Sinks. I think this one's for me. This was the 1997 health consultation that we published on Camp Lejeune, and it basically characterized what our health assessors saw in terms of exposure levels, potential pathways, and tried to look at the duration of exposure, the concentration of exposure, and compare that with existing scientific literature that was out there. Those individuals who were doing that made a conclusion that they did not expect to see cancers in adults.

However, I will tell you that as a carcinogen, there is no threshold dose to where we would or wouldn't know a cancer had occurred. And we wouldn't conclude that no cancers would have occurred on the basis of that.

I'm sorry. I kind of lost my train of thought there. But we did make the decision to go ahead and study it in adults because we had previously--you showed some data on Woburn--that was a study that we were involved in, and that did indicate some risks to childhood cancers, and we wanted to follow up with that, and we felt that this was the proper place to do that.

Mr. Whitfield. It's a little bit surprising, I guess, to hear that sort of determination, saying that it is unlikely to result in cancer, particularly since these wells--and water was coming from these wells from 1968.

Mr. Sinks. Mr. Whitfield, let me say that what hasn't been mentioned is that the health consultation does indicate that a past public health hazard had occurred, and that we clearly stated this was a past public health hazard. Now the individuals were looking, then, at would we have expected to see certain health outcomes, and they made the conclusion they didn't expect to. But they clearly did indicate that there was a past public health hazard presented by this exposure.

Mr. Whitfield. OK. You are saying there was a health hazard. But it's unlikely that it would have caused cancer?

Mr. Sinks. That was their conclusion at the time. But I will say that as a carcinogen with no threshold dose, we probably should be cautious about concluding that no cancers did occur. There may have been some cancers. I can't tell you if there were or there were not. But I'd also tell you that epidemiology would not be able to tell you if any individual's cancer was due to this----

Mr. Whitfield. If I'm a plaintiff's lawyer, I'm sure that I can come forth with scientific evidence and would make the argument that it did cause cancer. I mean that wouldn't be surprising to you that we would be able to find evidence to that effect, would it?

Mr. Sinks. Well, I think these chemicals are reasonably anticipated to be human carcinogens. That's well documented. The issue becomes one of duration and dose, and at what dose we see that. And I think the human epidemiology at the time was mostly focused on adults in occupational settings where their exposures are much greater.

Mr. Whitfield. We were talking about 2003, and you made the statement that in 2003 there was a position, and you've sort of made me think that maybe you are rethinking that. But in this report that was issued today, the Executive Summary, it says on page ES-3, thus ATSDR determined that exposure to VOCs in on-base drinking water was unlikely to result in cancer and noncancer health effects in adults.

Mr. Sinks. Well, that's quoting our 1997 public health hazard. Those were the conclusions of the people doing that health assessment. And again I want to repeat, while we use the word "unlikely," which is low probability, it doesn't mean they would not could not have occurred. We would not be able to exclude that possibility.

Mr. Whitfield. Well, Ms. Leonard, you are in charge of administering the 850-some claims filed by personnel at Camp Lejeune who are seeking damages, and in your testimony you state you are waiting for ATSDR to complete its study before you take action on the claims.

Ms. Leonard. Yes, sir.

Mr. Whitfield. It seems to me they're taking the position here that there's no correlation here. Is that what you think?

Ms. Leonard. Are you speaking only about the adults?

Mr. Whitfield. Yes.

Ms. Leonard. Yes. It does sound like that. We are waiting particularly for the water modeling part of the scientific study so that we can figure out what doses, during what time periods, at what housing areas, what levels, and when the medical piece comes through, we'll draw the correlation between

specific illnesses or injuries at that point.

Mr. Whitfield. Have you filed any medical claims on behalf of children?

Ms. Leonard. We have not at this point.

Mr. Whitfield. When do you expect that some decisions will be made on children's issues?

Ms. Leonard. As soon as we get the water modeling. I believe part of that was just released. I have not seen that nor have I been briefed on it. When the entire modeling is released and then the medical evidence tying particular illnesses or injuries to those levels of exposure, at that time we will adjudicate that group of claimants that are claiming about those particular illnesses.

Mr. Whitfield. What would you say of the time line on all of this would be? Or maybe Dr. Sinks could help or someone could help.

Mr. Sinks. The Tarawa Terrace study is complete and it's out today. The Hadnot Point piece is not completed. Mr. Maslia believes it will be done later this summer or in the fall, and the "epi" study which will be connecting the childhood conditions with these exposures would be sometime I hope in the spring.

Mr. Whitfield. Now these are being followed under the Federal Tort Claims Act?

Ms. Leonard. Yes, sir, they are.

Mr. Whitfield. And you all make the initial administrative decision?

Ms. Leonard. Yes, sir. Once a claim is filed, the law requires that the claimant allow the agency 6 months to adjudicate the claim. And when the 6-month time period expires, at that time they are able to go into Federal District Court to go sue the United States of America.

Mr. Whitfield. So you would make a decision then, and they would go to Federal court and contest that decision?

Ms. Leonard. They could go now if they wanted to, because the 6 months has expired since the claims were filed, the majority of them. So they could go now if they wanted to. The claimant always has the right to allow the agency more time to adjudicate the claim, as in this case, it's been more than 6 months. It's been years on many of them. So we are waiting for the further evidence to adjudicate those claims.

Mr. Whitfield. All right. Dr. Sinks, not too long ago, Ranking Member Barton and I sent a letter to you all talking about other military bases. And in some of the data that you provided back to us as answers--could you all put on the monitor this table regarding the HazDat Databases on Nebraska Ordnance Plant, Mather Air Force Base. It's hard to read that. But tab 21.

Mr. Sinks. This is what we sent you yesterday.

Mr. Whitfield. Yes. On tab 21, we specifically talked about five bases: Nebraska Ordnance Plant, the Mather Air Force Base, the Air Force plant No. 4, McClellan Air Force Base, and Wurtsmith Air Force Base. And your response, according to the documentation that we have, was wrong in three out of five of those facilities. The data in the HazDat Database was wrong in three out of five. Were you aware of that?

Mr. Sinks. We spoke with your staff yesterday about this. Let me say that your request came to us late Friday afternoon. It was a list of many bases, and asking us to respond to you in detail, I believe, around the 26th. We were asked to look at the five specific bases, and we did find that some of the numbers in there may not have fit a category that certainly I would have expected them to fit. I will not tell you that means they are necessarily wrong.

The system that you are describing, HazDat, was a system designed in 1991. It was specifically designed not for us to use to identify places where we would do human health research, but it was designed as a tool to provide individuals and communities information that they might readily access through the Internet about a site of interest. What we have is a list that you've come up with of several bases. I don't know how many--20, 30.

Mr. Whitfield. Well I think we want to get with you after this hearing, because the evidence shows quite clearly that the response was wrong, your response was wrong.

Mr. Sinks. Let me say there very well may be some errors in some of the data in HazDat, which contains hundreds of thousands of data bits and thousands of sites over 20 years of ATSDR involvement. The issue of how do we identify those sites where TCE is exposing large numbers of people where we might

want to do health studies is not one where we would necessarily rely on using that interbase tool.

So yes, there are things we should be doing with HazDat to correct it. We have been trying to put it on a new platform and to correct some of those things. But it does not surprise me that we could find one or two errors in there, or more, or the interpretation of them.

Mr. Whitfield. Well, I think the thing is, we're focusing on Camp Lejeune today. But we know that there are at least 22 other military bases around the country with some contaminated water. And in this--just taking the Nebraska ordnance plant, it says 630,000 parts per billion of TCE in municipal public groundwater contamination. And in the response it says that there was less than 700 parts per billion.

Mr. Sinks. Well let's split the difference here between what may be inaccurate with HazDat and how we can identify other places to do research on TCE. There are two different issues. Let me say we have done human epidemiologic research on other areas involving TCE, several of them non-DoD sites. So the work that was done in Woburn involved that. We've been involved in any number of human health studies. This particular error that you are looking at was apparently a transpositional error by an abstracter who looked at a value of PCBs--no TNT in soil at this ordnance plant and somehow put it in as TCE.

Mr. Whitfield. Well, I mean, you all are called to a high duty of responsibility and accuracy here, because when we have military men and women serving our country and they have their families with them, they expect, certainly, safe water to drink. And I think what's happened at Camp Lejeune is a real blight on all of us, and the fact that 22 other military bases have been identified with problems as well calls this to a very high standard. And I think that's what these hearings are all about.

And I want to commend the Chairman once again for holding the hearing and it's something we will continue to look at. And I think my time has expired.

Mr. Stupak. Mr. Walden, please.

Mr. Walden. Thank you, Mr. Chairman. I am going to yield 2 minutes to my colleague from Texas who has some specific questions involving Texas, and then I will have some questions.

Mr. Burgess. I thank my friend for yielding. I apologize for having missed part of this hearing. We have several hearings going on at the same time.

Dr. Sinks, on the list of 20 that Ranking Member Whitfield was just referring to, the top of that list is the General Dynamics plant in Fort Worth, Texas, with a reported contamination with trichloroethylene of 11,000 micrograms per liter. If I do the math right, that's 11 milligrams per liter. That's a strikingly large amount. Can I just ask what is being done currently? Is this the current situation that exists at these other installations?

Mr. Sinks. That report, I believe, particularly identified that level, but not at tap water where people were drinking. I believe that we did not indicate a public health hazard from TCE exposures at that site. Most of these sites I think, were involved where these levels exist. There is not ongoing exposure because they've documented the exposure and they've taken corrective action.

Mr. Burgess. Not to interrupt, but that's my biggest concern. We're doing something presently to keep ongoing exposure from happening, particularly at these wells or these sites that seem to have alarmingly astonishingly high levels.

Mr. Sinks. Absolutely.

Mr. Burgess. And are we also in the process of notification of individuals who might have been exposed? Because this is likely something that's been going on for some time.

Mr. Sinks. Our agency makes it a very specific practice to make sure our information is available. When we have a community that is currently there, we work very directly with the community to educate them on what we've found and provide them that information. We would have difficulty having to go back to people who were essentially in a military base and then left that base in terms of tracking them down and providing them that information on a one-by-one basis. We do make our information readily available publicly, but it's on the Web and that type of---

Mr. Burgess. General Dickerson, I realize this is the Air Force and not the Marine Corps. But would the military have the ability to access those records and be able to participate in information dissemination if that appeared to be necessary?

General Dickerson. Sir, I couldn't answer for the Air Force. But I would hope that OSD and the other services have these records available for review, but I cannot testify to this committee that those records are available.

Mr. Burgess. Well, Dr. Sinks, I will just echo what Mr. Whitfield said. I encourage you to get that information to the committee so we can make an informed judgment about that. And I thank Mr. Walden for yielding. I will yield back my time.

Mr. Walden. Thank you, Dr. Burgess. I appreciate your participation in the committee.

Dr. Sinks, I want to ask you, if you had been on these bases, especially Camp Lejeune, at the time that these other gentlemen were there, would you have felt--and known about the contamination--would you have felt comfortable drinking that water?

Mr. Sinks. Well, I think that I personally would have been using different water and I think that I would have been recommending that an alternative water source was used at that time.

Mr. Walden. And I think most of us--all of us--I don't know anybody that would say the opposite of that. The question then becomes: Where the database indicates that there were similar higher levels or different levels around the country and that we had men and women in uniform on bases consuming that water, doesn't it make sense then to look at those folks and do an epidemiological study?

Mr. Sinks. Thank you for the question. For us to do an epidemiologic study there needs to be a number of things available to us. One, we wouldn't do an epidemiologic study unless we were convinced there was a completed pathway of exposure and there were people actually exposed. Usually in environmental epidemiology this issue of trying to determine who was exposed, who wasn't exposed, is, frankly, the most difficult thing to determine.

Mr. Walden. If I can just interrupt you a second, because I don't do what you do.

Mr. Sinks. And I don't do what you do.

Mr. Walden. Well, you may be better off then. In Fort Riley, there are 2,550 people that have been identified, estimated exposed population at 330 parts per billion BCE and 96 parts per billion of TCE. Does anybody know who those 2,550 people are?

Mr. Sinks. I would not know.

Mr. Walden. Does anybody in your agency know?

Mr. Sinks. We would not generally collect personal identifying information unless we were going ahead to do an epidemiologic study, and then we have a burden to very closely protect that information in confidentiality.

Mr. Walden. I understand. I guess what I'm trying to get at, how do we take care of the people who may have been exposed? How do we determine if there's a connection here and how do we get them help if there is? And it sounds like you can't do that. Is that correct?

Mr. Sinks. There are things that I can do.

Mr. Walden. What can you do?

Mr. Sinks. I can do a health consultation and determine if there was a completed pathway.

Mr. Walden. What does that mean, completed pathway?

Mr. Sinks. Well, that simply is reviewing the available information to determine if a contaminant in air, water, soil, food, was at a level that would have constituted a health risk and people actually consumed it or inhaled it.

Mr. Walden. Sure. And I understand that. But at 330 parts per billion of BCE, does that constitute that pathway if one of these----

Mr. Sinks. It would if it's in our drinking water at the tap. Now, let me point out that there are other issues for when you would do a study. You would do a study if you had sufficient numbers to study and you know who they are, and you have the ability to track them, and you can identify specific health outcomes that they may have had. And that can be a very difficult thing when we're going back 10, 20 years to try to reconstruct that history.

Mr. Walden. All right. I'm sure it is.

Mr. Sinks. Let me give you one example. If we did find a very high level in a well off base that was exposing a family, our recommendation would be to get them alternative water.

Mr. Walden. Right.

Mr. Sinks. Our recommendation would not be to do an epidemiologic study. We would not do a study of a single

family, or even 20 families, because we wouldn't have enough people to study.

Mr. Walden. OK. With 2,550 families or individuals?

Mr. Sinks. It could be, if we also had an appropriate control group who were unexposed and we were able to identify who those people were, and we knew what the health outcomes we were looking for were, and we had the availability to get information on that.

Mr. Walden. I guess what I'm struggling with--and I'm probably not alone--it seems like we would err on the side of the men and women in uniform, that we would be doing everything possible to contact every person who was on these bases and to find out if there is this connection.

And I may be not hearing you correctly, but I get the sense that we're not making that effort; that there aren't enough people, there aren't enough people sick, we don't know about a pathway yet. We have this database that shows pretty high levels of concentration of these chemicals in the water. Am I missing something here?

Mr. Sinks. Let me separate out this issue of why you are wanting to go back and contact those individuals.

Mr. Walden. Right.

Mr. Sinks. For a specific reason.

Mr. Walden. Right.

Mr. Sinks. Versus needing to do an epidemiologic study. The study we're doing at Camp Lejeune right now looking at these birth defects should be very sufficient to tell us whether or not levels of exposure in this range are associated with risk, with these conditions, and we wouldn't make a recommendation to go out and look at every single instance when that occurs. We want to inform the science. We want to learn from it.

Mr. Walden. So you would use the science from that study and apply it across----

Mr. Sinks. Right.

Mr. Walden. Are there already epidemiologic studies, already done outside of the military application, involving these chemicals in drinking water?

Mr. Sinks. Yes, there are.

Mr. Walden. What did they show?

Mr. Sinks. Actually, let me ask Frank to talk about Woburn and the other studies that he's done.

Mr. Walden. Did they show a connection and the pathway that Dr. Sinks----

Mr. Bove. There have been two studies that looked at childhood leukemia and these chemicals specifically: Woburn, which we funded; and a northern New Jersey study which I participated in, and was funded also by ATSDR. In both studies, trichloroethylene was associated with childhood leukemia. The only wrinkle here is that in Woburn most of the cases were males, and in the New Jersey study, the excess was--it was entirely in females. So we don't understand what that is all about.

But there's also been a study done of birth defects and TCE and PCE. That's a study I did in northern New Jersey. That was also funded by ATSDR and I found associations there between trichloroethylene and neural--two defects and oral clefts. That's why we're studying them at Camp Lejeune. As for PCE, it was much fuzzier and not clear, but there seemed to be an association with oral clefts, cleft lip and cleft palates, so that's another reason we are looking at those end points there.

Mr. Walden. So from the studies you've done or the science you've studied, the information you've seen from perhaps other studies, would it be reasonable for somebody like me to conclude that if there are certain levels of these chemicals in the water that was consumed by men and women in uniform, or anybody anywhere, that that's a likelihood they could come down with the diseases, or their kids could, that we heard about from the first panel?

Mr. Bove. The problem here is that both the New Jersey study that I worked on, both studies, and the Woburn study are still in dispute of what they show. There are, of course, industry people that will say that they are not sufficient to show anything. So there is this dispute and controversy in the scientific community.

Mr. Walden. Should there be other studies done?

Mr. Bove. Absolutely.

Mr. Walden. Would you recommend that studies be done on people from these other bases?

Mr. Bove. We want to do credible studies, though, because if we don't do a credible study, a strong study, they won't

provide the evidence we want. We have to pick exposure, those situations where there's good exposure data, and there also has to be a large enough number.

Now, if you remember, there are 12,000 or so births we looked at at Camp Lejeune. And at the end of the day, we have relatively small numbers of cancers and birth defects to look at, and that's because these are rare outcomes. So if we want to do more of these kinds of studies--in northern New Jersey, I looked at 80,000 births. I still had small outcomes at the end. So that's how difficult these studies are.

You cannot recommend doing these studies anywhere and everywhere. You have to have good outcome data. You have to have good exposure data. You have to have large numbers of people in order to have a strong enough study to make a dent in the controversies around these chemicals.

Mr. Walden. All right. So then are you suggesting that, given the testimony we heard in the first panel and the data on water quality we've seen, that there isn't enough there to do more studies?

Mr. Bove. No. I'm always looking for an opportunity to do a study. My frustration has always been that the States oftentimes do not have this kind of data available in the drinking water in their municipalities so we could do studies. I would love to repeat the New Jersey studies I did back in the early 1990's. I would love to do that all across the country.

The problem appears to be that there's not enough data on drinking water contamination in this country to be able to do these studies. The other side also is that you need good registries, you need cancer registries, you need birth defect registries. In North Carolina they didn't have a birth defect registry until 1996, and a statewide cancer registry until 1990.

Other States are in somewhat similar state. New Jersey was fortunate. We had both in place early enough and good drinking water data so I could do these studies.

Mr. Walden. Weren't there medical records on the base that you would be able to search back through, or the individual service members' records.

Mr. Bove. We were able to use the medical records to verify the cases in the current study, although we have some cases where there are no medical records available. Medical records do not stay at the Naval Hospital. They get shipped to another location for storage. I'm not sure exactly when I can get back to you on that. But they are stored. They're not destroyed.

Mr. Walden. So they do exist?

Mr. Bove. But they're not easy to access and they are not filed in any way that would be very easy to link the population with the outcome.

Mr. Walden. My time has expired. Thank you, Mr. Chairman.

Mr. Stupak. We're going to go another round. I will let you go over because I know you gave some time to Mr. Burgess.

After you do your study, and Ms. Leonard, you are going to pay your claims based upon the study; right?

Ms. Leonard. Yes, sir. When we have the information, we will adjudicate the cases at that time, yes.

Mr. Stupak. So if their study shows there's a connection between childhood birth defects, you are just going to pay these claims for the childhood defects?

Ms. Leonard. Well, there's a little more that goes into it besides that. We have to take all of the information and analyze each case on a case-by-case basis, the facts.

Mr. Stupak. Even if they do their study, you are still going to look at this case by case? You may not do anything with these claims?

Ms. Leonard. Absolutely. We have to adjudicate each case on its own merits.

Mr. Stupak. Why are we spending all this money on studies? It seems like we're just delaying here. Delay, delay, delay.

Mr. Sinks. The reason that we do the studies is to add to the science base to inform groups like---

Mr. Stupak. I understand that. But I want to know about the victims at Camp Lejeune. How are these studies helping them? Because it doesn't look like it's helped them at all.

I will take that back. You did point out today that through your investigation based on this report, you did today on page ES-10 from 19 January 1955--I will take it back--first exceeded the minimum content level was October 1957. So the pollution at Tarawa Terrace has been going on since 1957. Your study has only gone on from 1968 forward. Can you go back to 1957 and take a look at this? If you take a look at it from 1957 on,

according to your chart, you are way above the minimum content level.

Mr. Sinks. Let me point out that the purpose of our study is not to identify individuals who were affected for compensation. That is not the purpose of our study. The purpose of our study is to do the most credible work we can do from a scientific point of view.

Mr. Stupak. On TCE and PCEs, right?

Mr. Sinks. TCE and PCE contamination at Camp Lejeune. We made a decision to start in 1968, not because that's when pollution started, but because that's when we could identify the cohort of births that we wanted to look at in order to do our study.

It was really an issue of efficiency.

Mr. Stupak. So you are saying the information is not available between 1957 and 1968 for the births?

Mr. Sinks. It may be available. We do not have it.

Mr. Stupak. Wouldn't you want to go back to 1957 now and move forward?

Mr. Sinks. I don't think so. We have more than 12,000 births. We have terrific information, particularly on Tarawa Terrace on the exposure, and we believe that the size of the group we've collected will be sufficient to answer the questions that we've posed. The issue of going back has to do with whether or not our study is sufficient to answer those questions.

Mr. Stupak. All right.

Mr. Sinks. Now, I will also say that, unfortunately, epidemiology is not the right tool to identify whether an individual has developed a disease from a specific cause.

Mr. Stupak. I agree. That's where Ms. Leonard can still dispute it, right?

Mr. Sinks. Well, Ms. Leonard will have to decide what she decides. That's not in our court.

Mr. Stupak. Ms. Leonard, this committee has asked for the litigation report. I understand it's 400-and-some pages. When can we expect that report?

Ms. Leonard. Sir, I turned that over to the legislative counsel at DoD yesterday, and they will be responding to your request. I'm not the person that would be producing that.

Mr. Stupak. When?

Ms. Leonard. I don't have that information. There is a legal review ongoing right now.

Mr. Stupak. All right. I still get the impression from the first panel----

And General Dickerson, let me ask you this. Why has DoD not notified those residents at Camp Lejeune who were there during the time these wells were in use, that they may have been exposed to TCE or PCE?

General Dickerson. Sir, there have been numerous communications from the commanding general at the time, from Headquarters Marine Corps, through media surveys, contacted over 3,500 media outlets, whether that be weekly publications, daily publications.

Mr. Stupak. I realize that. The people who were there, you can't tell me the Marine Corps doesn't know who was at Camp Lejeune from 1965 to 2007.

General Dickerson. We could probably get the data who was stationed at Camp Lejeune. Would it be 100 percent complete? I'm not sure. We've made every attempt to get the information out and work with ATSDR to make sure----

Mr. Stupak. Right. I mean military--don't you think you have a responsibility to let these people know they may have been exposed?

General Dickerson. Yes, sir.

Mr. Stupak. Why don't you do it?

General Dickerson. We are doing everything we possibly can to get the media out.

Mr. Stupak. Not the media.

General Dickerson. Message.

Mr. Stupak. Not the media, not the message. I'm talking about notice those individuals who lived there. Why not contact them?

General Dickerson. Some people, we haven't got an address to get to. Some of the records are not complete on everybody that was stationed there.

Mr. Stupak. Have you made an effort?

General Dickerson. We have made every effort to get the word out. That is why the Web site was set up.

Mr. Stupak. No no, not the word out. Notice directly these

people. If you can track down Dr. Gros who is down in Beaumont, Texas, for his son, I would think the military could do it if they wanted to; don't you think?

General Dickerson. We have a media campaign to go out, based on the study----

Mr. Stupak. As an officer, wouldn't you expect your Marine Corps would tell you? Were you at Camp Lejeune during this time?

General Dickerson. The Marine Corps, sir, has tried----

Mr. Stupak. Were you at Camp Lejeune during this time?

General Dickerson. Yes, sir, I was. I was stationed there from 1974 to 1978, from 1983 to 1986.

Mr. Stupak. Would you expect to be notified?

General Dickerson. I was. Yes, sir.

Mr. Stupak. How would you notified?

General Dickerson. By letter, by communications, and base papers.

Mr. Stupak. Don't you think everybody, then, should get a letter?

General Dickerson. Yes, sir. To my knowledge, everybody who was in affected areas had a letter.

Mr. Stupak. That's not what the first panel said.

General Dickerson. I understand what the first panel said. Yes, sir.

Mr. Stupak. Dr. Sinks, have you been told by DoD why they didn't fund your study from 1998 to 2000? Have you been told?

Mr. Sinks. No, I have not. I was not with ATSDR at that time.

Mr. Stupak. Do you have any reason? Have you drawn any conclusions why they did not fund you?

Mr. Sinks. I can't draw any conclusions about that. I can tell you that we did not stop our work and that we went ahead and funded it with our CERCLA dollars to ramp up to begin the study.

Mr. Stupak. OK. Has the Marine Corps promptly and fully disclosed to you all information pertaining to the contamination so that accurate studies of adverse health effects could be conducted?

Mr. Sinks. Since I have been involved in this, which is about the past 3 years, every time I have made a request they have made the information available, and most of this information Mr. Maslia has been involved with, and I believe he's gotten very good cooperation.

Morris, do you want to add anything?

Mr. Maslia. Yes, sir. We have received the information that we have requested. Some of the issues involved is identifying who may have the information, and in our vernacular or our jargon, from a modeling standpoint, an epidemiologist identifying it so the people on base understand exactly the type of information we're looking for.

Mr. Stupak. OK.

Dr. Sinks, of these 57 children with confirmed illnesses or children of interest, as you call them, how many of these 57 are still alive?

Mr. Sinks. I'm going to defer that to Dr. Bove. He may know that. I don't have the information.

Mr. Bove. I don't have the information in front of me. I will have to get back to you.

Let me say one thing though; that the neural tube defects, including in particular anencephaly, they die pretty much right after birth, so those would definitely be dead. Some of the spina bifida cases would be dead because the leukemias would be dead. So I would--but I will get back to you.

Mr. Stupak. It doesn't sound like very many would be alive, then.

Mr. Bove. The majority are still alive, as of the survey which is the last time we checked on their vital status. The majority are alive, but I don't have the exact number, and I'll get back to you with it. But whether they're alive or dead, they were in our study, and they stay in our study.

Mr. Stupak. OK.

Dr. Sinks, do you want to say something?

Mr. Sinks. I was just going to add that most of the clefts, cleft palate, cleft lip, would not be fatal. We've had a tremendous success in treating childhood cancers over the past 15-20 years, so I would think that a significant number of the kids with leukemia would have survived. And the neural tube defects, most of the spina bifidas, probably would still be alive.

Mr. Stupak. If the Marine Corps provided you all the names

of all the people who are living in Tarawa Terrace from; 1957 until 1997, would that help you?

Mr. Sinks. In terms of this childhood study or additional studies?

Mr. Stupak. The information you need.

Mr. Sinks. Well, we have the information we need.

Mr. Stupak. I get the feeling you would study this thing to death if we let you. I am trying to bring this to some kind of end here.

Mr. Sinks. We would be pleased with the opportunity to use our skills in environmental measurements in epidemiology to do more work. There's no question about it.

Mr. Stupak. My time's just about up. You keep talking about water modeling, OK. That's TCE, PCEs, in the water, how much at certain times; like that, right?

Mr. Sinks. It's more detailed than that. We have just a few data points that were collected between 1982 and 1985.

Mr. Stupak. But there's no doubt in this area we're talking about Tarawa Terrace, Hadnot Point, people were exposed to TCE and PCE.

Mr. Sinks. Well, certainly our water modeling---

Mr. Stupak. You don't know if it's one glass of water that would trigger childhood leukemia or if it's 3 years of drinking the water, do you?

Mr. Sinks. I wouldn't know how much it is.

Mr. Stupak. Right. So why is water modeling so important when you have statistics like you show here, off the charts?

Mr. Sinks. Because we don't rely simply on saying there's an association because somebody drank one glass and someone drank no glasses.

Mr. Stupak. That's right. And you don't ask them how many glasses they drank. From a scientific point, they're exposed or they're not exposed.

Mr. Sinks. No, that's not the point. The point is the risk increases with the amount somebody took. We do look for a dose response. It's very important for looking at causal relationships, and without it---

Mr. Stupak. So what's the minimum you look for for exposure here at Camp Lejeune?

Mr. Sinks. What do you mean by "minimum?"

Mr. Stupak. What's minimum exposure?

Mr. Sinks. Minimum concentration?

Mr. Stupak. No. What's the exposure? How many days do I have to be exposed before I would be included in your study? The question is, is are we categorizing people in an exposed category for having been in this area 1 day, 30 days, 60 days?

Mr. Bove. We do everything on the month, not by the day.

Mr. Stupak. How many months do I have to be exposed?

Mr. Bove. For neural tube defects and for oral clefts, the timing of the dose would be first trimester. After the first trimester, no matter what you are exposed to, will not cause those outcomes. OK? They are caused early in the pregnancies. It's part of the difficulty of studying them. For the neural tube, it's day 20 of gestation to day 27.

Mr. Stupak. So a 3-month period.

Mr. Bove. Well, in that case, the third to fourth week of pregnancy, when the person doesn't even know they're pregnant oftentimes, is when the dose would cause that neural tube defect. OK. So it depends on the outcome. For childhood leukemia from the Woburn study, we get the idea that the exposures during pregnancy are more important--the exposures during gestation are more important than the exposures after birth, although there's still some controversy about that in the literature.

Mr. Stupak. How long did it take you to do the Woburn study?

Mr. Bove. There were two Woburn studies.

Mr. Stupak. How long did it take to do two of them? Because we're on 10 years here.

Mr. Bove. The first Woburn study started in 1982 and finished in 1987.

Mr. Stupak. Five years.

Mr. Bove. The second one started in the early 1990's and didn't finish until the late 1990's. The difference between Woburn and the Camp Lejeune study, there are several. First, they did not do groundwater transport. They just used the one sample they had, 267 parts per billion, and modeled the drinking water system.

We're doing much more than that in terms of modeling. In order to determine when the contamination started, we don't

know that without the modeling. The 1957 day you keep mentioning, we would have no idea without the modeling. We would have no idea what the levels were before 1980 because there are no data before 1980. In fact, we wouldn't know the levels pretty much until 1982 when we start getting some specific numbers for the particular VOCs.

But we know that the exposures happened before that. The only way to know that is through modeling. There's no other way to do it. It takes a long time to do this kind of modeling. This is cutting-edge technology here we're talking about. There's no other study that's done this. I just want to get that across.

Mr. Stupak. It would be a lot more--I won't even go there. Any other questions from this side?

Mr. Whitfield. Just one more.

General Dickerson, I would like to ask you a question. TCE was first detected in drinking water at the Wurtsmith Air Base up in Michigan in October 1977. And the Air Force officials immediately took steps to identify those wells, and within 1 month they basically closed those wells down. Now, you were not the commanding general certainly at Wurtsmith which is an Air Force Base, and you were not commanding general at Lejeune. But in Lejeune, the first notice was in 1980 and then in 1982, and they didn't close these wells down until 1985. So a period of 3 to 5 years at Lejeune for them to make that decision. From your personal knowledge or your discussion with other people involved, what was the difference in the speed of closing down Wurtsmith and Lejeune? Why was there that kind of discrepancy?

General Dickerson. Sir, I can't speak for the Air Force on what they did. But I can say everybody at Camp Lejeune reached out to the State environmental, to the EPA, to everybody, to find out what was the causes of the VOCs in the water at the time, to find out what the impact was. They did not know. They didn't find out the source of the contamination until 1984 when they found the contaminated wells; and as soon as they found they were contaminated, they shut them down.

There were no standards. That's part of the complicating factor here on what to expect. There were snarls that had been put out, but there was never any consistent data when they did sample the water. Now, I'm talking finished water to come up with the conclusion of what the impact was going to be on the consumption, once it was discovered that the wells were contaminated they shut the wells down.

Mr. Stupak. Can I jump in?

Mr. Whitfield. Sure.

Mr. Stupak. The big black binder there, go to exhibit No. 20, General. Because, man, when I read it as early as 1972, the Navy regulations regulated your water, what contaminants could be in. What could that be in, 1972? So all this stuff about standards in the 1980's doesn't make sense.

When you look at exhibit No. 20, it says Navy regulations required regular drinking water testing, and although TCE and PCE are not specifically mentioned, these regulations set limits for chlorinated hydrocarbons at 3 parts per billion. That's lower than the 5 parts per billion EPA has right now. That's 1972.

So in answer to Mr. Whitfield's question, I don't think that would be quite right, according to the exhibit from the Navy.

General Dickerson. Sir, I am not familiar with this BUMEDINST description. But I can say the water was tested. All finished products were tested.

Mr. Stupak. Based upon 1972 standards, right, sir?

General Dickerson. I can't say that.

Mr. Stupak. Read it. It says right there, 1972.

General Dickerson. I see this. Yes sir.

Mr. Stupak. So it's 1972, right? You see that?

General Dickerson. I would hope it was by this instruction.

Mr. Stupak. OK. So there was a standard as early as 1972. So your answer to Mr. Whitfield would not be responsive or accurate.

General Dickerson. It was tested, but I cannot say specifically if these standards were employed at that time.

Mr. Stupak. Well, Marine Corps was required to follow Navy regulations, were they not?

General Dickerson. Marine Corps does follow Navy regulations.

Mr. Stupak. Is it a violation of your military code if you ignore the regulations?

General Dickerson. No, sir. We do not ignore any

regulations. We hold ourselves to the highest standard.

Mr. Stupak. So then, 1972 for hydrocarbons, 3 parts per billion.

General Dickerson. If that's what this instruction says, yes, sir.

Mr. Stupak. Exactly what it says. So you had a standard in the 1980's. Someone chose to ignore it.

Ms. Dreyer. Sir, if I can add a little to this. Also suggested no adverse response level values which ranged from 2,000, 2,300 down to----

Mr. Stupak. That's not what the document says. Navy regulations says 3 parts per billion. You are required to follow Navy regulations if you are in the military, and Camp Lejeune would be one of those installations under Navy control. Therefore you would expect they would follow 3 parts per billion, would you not?

Ms. Dreyer. I'm not familiar with that document either, but you would expect it. Let me also say that the source of the chemicals, the TCE and PCE was in the well water. When Camp Lejeune figured out that the well water was the source of these chemicals, the day they sampled that well, they shut the well down. Yes, it did take a long time between 1982 and 1984 when they actually sampled the well. This is during the time when there were concerns about asbestos-coated piping as well. And they did do some research to try to determine what was the cause of these chemicals. Ultimately it was determined to be the wells.

So it didn't take a month, once the well was sampled and the chemicals were identified. It was more in terms of days.

Mr. Stupak. Are you telling me the military's response is-- even though we know we are extremely higher than 3 parts per billion, way over our Navy regulations, we would continue to expose people because we can't find the source? That's ludicrous. If you are concerned about the health and safety of the people you are dealing with, if they're being exposed to it, you would bring in potable water, you would take other action. Your CID, Criminal Investigation Division, basically the investigation found that they were not forthcoming in questions, were not diligent in providing expertise, coached in their answers, steered away from admitting knowledge of organic interference from solvents.

It's been there since 1972. Your people were exposed to it, and you didn't do anything.

General Dickerson. I wouldn't say that the Marine Corps, that Camp Lejeune didn't do anything at that time. I will say that they did work closely with the State of North Carolina environmental to detect and find out what was contaminating the water, see what the level of contaminants were and what the impact was. They didn't know. There were no standards for these contaminants at that point in time. I understand the view of what you have pointed out to us today.

Mr. Stupak. I yield back. Sorry.

Mr. Whitfield. Ms. Dreyer, you are responsible today for the environmental restoration program for the Marine Corps; is that correct?

Ms. Dreyer. Yes, sir.

Mr. Stupak. So all of the bases around the U.S.?

Ms. Dreyer. Yes, sir.

Mr. Stupak. And are there other bases that are being operated today that have water problems, water quality problems?

Ms. Dreyer. We have other bases across the Marine Corps that have these chemicals in the soil and groundwater. But I'm not aware that any of these chemicals have entered into the drinking water system or have impacted drinking water, no.

Mr. Whitfield. OK. I yield back the balance of my time.

Mr. Stupak. Mr. Walden, any questions?

Mr. Walden. I just want to go back to this document, see if I understand what you are saying here. This is the one on tab 20 that deals--25 August, 1972, the BUMEDINST 6240.3C, where it limits the chlorinated hydrocarbons. First, I am not a chemist. Did these two chemicals that we are referencing today fall under this category of chlorinated hydrocarbons?

General Dickerson. I would defer that to----

Ms. Dreyer. I believe they did, yes.

Mr. Walden. That is a yes then?

General Dickerson. Yes, sir.

Mr. Walden. OK. So then the level that is referenced here on page six of that document, the 0.003 to 0.1 concentrations in milligrams per million, that would have been way below what

you were reading coming out of the tap; right?

General Dickerson. Yes, sir.

Ms. Dreyer. Yes, that is correct. Generally, at that time period, the method detection limit or the laboratory's capability of detecting chemicals in water was generally about 10. If Camp Lejeune officials during that time got a reading of 10, it could be reported as nondetect or otherwise not present in the sample. That is correct.

Mr. Walden. And at that time, what were their readings?

Ms. Dreyer. They varied. That was part of the problem. In many instances they would have nondetect. We have seen as high as 1,400 in tap water. I will point out that 18,000 figure is from a well sample. And that well would not have been provided directly to anybody to drink. It would have been transported to the water treatment plant and mixed with other wells that were pumping at that time. So the highest reading that I am aware of right now at the Hadnot Point system is 1,400 parts per million, which is well above today's standard.

Mr. Walden. Was it above this standard from the 1972 document?

Ms. Dreyer. It would be, because this is three, and that would be five, and the only question I would have--and I am not a laboratory analyst, so I don't know what the method detection limit was. It could have been 5; it could have been 10. It varied depending upon the laboratory and their credentials.

Mr. Walden. And who was in charge then at Camp Lejeune to make sure that these levels were being followed?

General Dickerson. All of the officials, sir. All of the officials at Camp Lejeune would have been in charge, just like they are today, monitoring this, trying to detect what the levels of the particles are per---

Mr. Walden. And General, have you gone back and looked to see if anybody who was in charge over the last 20 years did anything when a detection level exceeded the one listed here occurred? Is there any documentation that would indicate somebody said, wait a minute, we are over the limit?

General Dickerson. I can say that there has been an EPA Criminal Investigative Division investigation, there has been a GAO investigation, and six separate studies, to include the Commandant's panel looking into the past to find if there was any wrongdoing. And everybody has come back and said there were no criminal intentions. Everybody did the best with the information they had at the time. Unfortunately, some of the levels on a day-to-day basis were above the acceptable levels for drinking water.

Ms. Dreyer. If I can add to that, the base chemist at Camp Lejeune during the early 1980's did make handwritten notes on some analytical data suggesting that it was highly contaminated, and that is in the record. I will also note that the Navy, the chairman mentioned a quote about LANTDIV. LANTDIV is the Atlantic Field Division of the Navy Facilities Engineering Command. And during the early 1980's, I don't know when it transitioned to Camp Lejeune, but during the early 1980's and possibly before that, the Navy was supporting the Marine Corps with some engineering services, including this water sampling. And that is part of trying to reconstruct the history and figure out, when did Camp Lejeune know? It is unclear to us even today. But we do have the information that, in the 1980's, we had interferences, and we do have analytical data in 1982.

Mr. Walden. So then I just want to make sure I understand what you are saying, what did you say, the LAN---

Ms. Dreyer. The Navy, one of the field divisions of the Navy.

Mr. Walden. So they were maybe responsible for ensuring that these regulations were followed, water was---

Ms. Dreyer. They were conducting the water sampling and analysis. And at that time, they were trying to comply with the future regulation of the disinfection byproduct process, TTHMs. And that is when this all came about, when they were gearing up to find out if those chemicals were in the water. And they were masked by these other chemicals when those came to light.

Mr. Walden. I see. I guess what I am struggling with, and I imagine some of my colleagues are, is, if you were seeing this pollutant in the tap water, wouldn't it have made sense in less time than 4 years to go to the sources and see where it was coming from?

Ms. Dreyer. Yes, it does.

Mr. Walden. We are looking back, so we have got 20/20 vision.

Ms. Dreyer. That is correct. And through my research, through everyone's research, including the first panel, the second, all three panels, we have all been trying to figure out what happened. We are looking back 20 years, trying to put it into context, trying to figure out, could we have done things better? Should we do things better? But trying to reconstruct that is very, very difficult.

Mr. Walden. Right. I am not trying to pit one branch against the other. My understanding is the Air Force took that action in a matter of what, a month's time or something when they discovered at Wurtsmith that the tap water was bad. They went right to the wells.

Ms. Dreyer. Right.

Mr. Walden. So why wouldn't that have occurred?

Ms. Dreyer. I am not familiar with their water distribution systems. I really think it would be more appropriate if they were in the room to answer. But we could have different systems. I am not sure.

Mr. Walden. General, did you have something?

General Dickerson. Sir, I would just add, if this was to occur today and there were no levels that had been determined by the EPA, the water would be shut down until they could find the ingredient that is being introduced into the water. We have learned a lot from what happened back in the early 1980's.

Mr. Walden. Yes.

General Dickerson. We had to rely upon the science, the data that is coming out of ATSDR to find out what was the impact.

Mr. Walden. And I hope you understand where we are coming from. We want to make sure it never happens again first. And that is our job on the oversight committee all the time is to figure out, what went wrong; why did it go wrong; and how do we prevent it from going wrong again on all these topics we take up. But second is, I think you hear the passion in our voices about taking care of those especially who have worn our Nation's uniform, who have been injured by this. And I realize you are doing the studies and all that, but these people are sick and dying along the way and fighting for benefits and help for illnesses that it looks to me like there is a pretty good relationship here. But I am not a scientist. But we need to take care of those people.

General Dickerson. Our most precious resources are our Marines and families, and we are going to do everything possible to take care of them.

Mr. Walden. I am sorry to interrupt you. I am going to run out of time here. I want to go to one other point you said, because you talked about, you got a letter notifying you of potential health risks from Camp Lejeune.

General Dickerson. Yes, sir.

Mr. Walden. Do you know how many of those letters went out?

General Dickerson. It was my information and knowledge that everybody living on the base got one of those official letters. Now whether they were received or not I cannot testify to this committee.

Mr. Walden. I understand, but this is everybody living on the base at the time you were living on the base?

General Dickerson. Yes, sir.

Mr. Walden. Not that they tracked down those who had lived on the base.

General Dickerson. No, sir, at that point in time, from the commanding general, it was those who were living on the base.

Mr. Walden. At that time?

General Dickerson. Yes, sir.

Mr. Walden. This would explain why some people in the room say I didn't get a letter, because they may have not been living on the base at that time. Is that correct?

General Dickerson. To my knowledge, that is correct, yes, sir.

Mr. Walden. So I think the other piece we are after here is, what would it take to reach out to anybody who had lived on the base? I am assuming somewhere in their military files that OSD has, or somebody, there is a chronology of where everybody was at any time, or Camp Lejeune probably has records that would indicate who lived there and who didn't. Is that correct?

Ms. Dreyer. There is a lot of information out there about that. I will say that, upon conclusion of the ATSDR study, the Marine Corps is going to conduct full notification in conjunction with ATSDR to get the result, not only the potential exposure but the effects of that. What does it mean?

Mr. Walden. Sure.

Ms. Dreyer. Right now, the Marine Corps, ATSDR has just completed their water modeling, so they have their estimations of how much people may have been exposed to. They mentioned also that they have not yet completed the Hadnot Point water modeling system. So those people still don't have answers to these important questions. The third thing that they don't have yet is, what does this mean? And I think you are getting at that here. We know that people were exposed. We know there were chemicals in the water. What does that mean? A lot of people want to know that same question. I know ATSDR does. That is why we need to have the study completed. But one other thing, it is not as easy to contact people individually, especially prior to the early 1970's, when people did not have Social Security numbers, and they had service ID numbers in the military. So that would be a very difficult and laborious task. We could try. But I could never commit to finding 100 percent of people who may have been exposed that. It would be very difficult. The best way to reach them is probably through mass media and every alternative possible, being as broad as possible.

Mr. Walden. We just don't want to leave anybody behind.

Ms. Dreyer. I agree, sir.

Mr. Whitfield. Mr. Chairman, I would just like to make a comment. All of us have the highest respect and admiration for our men and women serving in the military, and those who have served, but I think the bottom line of this incident at Camp Lejeune can be summarized in just a few comments from the EPA Criminal Investigation Division of the Naval Facilities Engineering Command Atlantic Division on this incident. And they said, in a number of different places, this investigation found the staff of the LANTDIV was not forthcoming when questioned about these issues. This investigation found that LANTDIV as a technical advisory organization to Camp Lejeune was not diligent in providing the technical expertise on this issue. LANTDIV personnel consistently steered away from admitting any knowledge of organic interference from solvents. The biggest area of concern were the seemingly rehearsed statements provided by the personnel of LANTDIV. The greatest concern lay in the fact that investigators found LANTDIV personnel to have been coached. Something I think there may not have been any criminal charges, but I think it is a sad day that the investigation shows quite clearly that people were not forthcoming. And like I said, we are very proud of our military, but I think, in this incident, the military leadership failed the men and women who serve this country and their families.

General Dickerson. Sir, if I could comment on that, it would be beneficial if you could get representatives from LANTDIV to answer that question directly.

Mr. Stupak. We plan on having them in. I just don't do one hearing and stop it. This thing is going to go on. LANTDIV is the Naval Facilities Engineering Command Atlantic Division. So the military certainly knew about it. And as Mr. Whitfield didn't say, he didn't go on and talk about even far more, that it wasn't until 1984 that the Natural Resources Environment Affairs Division at Camp Lejeune personnel ever sampled individual wells, as opposed to finished drinking water at the water treatment plants. Self-admittedly, this was the most significant lapse in judgment. Not only didn't do it until 1984, but you actually had your Naval regulations in 1972, so for 12 years they did nothing because your Naval regulations under tab number 20 is very clear, the presence of the following substances in excess of the concentrations listed shall constitute grounds for rejection of supply--rejection of the water supply; 3 parts per billion. You were way over that. Way over that. Your own rules said you should have rejected it. And you didn't do anything. So that is why we are here.

This, also, lack of notice; you can't notify people. When you take a look at the report, whether it is GAO, they tell you how many people were on base, how many people came on base. I can't believe the military cannot provide that information to either, whether it is Dr. Sinks' group or whatever, or they could get a letter, like you indicated. My chief of staff here sits here and says, man, I moved three times in the last few years, but still I get a recall notice on a car that I owned three moves ago. And if a private company can still notify you about your clunker, which is probably already no longer on the road, but can give you recall notices, I would think the military could contact people who were exposed. And I would go from 1957 until 1987, that 30-year period. I just can't believe you can't do that. That's inconceivable to me.

Any further questions? We will dismiss this panel. Thank you.

Dr. Sinks, you had something you wanted to add?

Mr. Sinks. Yes, just to remind you that we are involved in the feasibility study. The feasibility study is looking at adults. It would look at cancer incidence and total mortality. We are working with the Department of Defense to identify records of individuals who were at Camp Lejeune during that time period. And we have had a good amount of cooperation from them to determine if we can get access to those records and construct the cohort of individuals you are suggesting.

Mr. Stupak. I am sure if you are wanting all these studies done, I am sure if you just reach out to those people who were exposed to TCEs and PCEs from 1957 to 1987 in Camp Lejeune, sent them a letter and put it in their hot little hand, so there is no dispute whether or not they got notice, I am sure they would give you a waiver so you could get all the medical records you wanted. But until they get that letter, they have got to rely on media. And even though we have a little coverage of this hearing today, 99 percent of them will never hear about this hearing we had today. That's why it is so important to have direct contact with those individuals. And those people who were off base but worked on base, they certainly drank that water, too. Thank you.

Mr. Stupak. All right. Our next panel, a third panel, as this panel vacates, I will ask the following witnesses to come forward for our third panel: Dr. Peter Murtha, Director of EPA's Office of Criminal Enforcement; Mr. Tyler Amon, Special Agent for EPA's Criminal Investigation Division; Mr. Frank Hill, Director of Superfund Division at EPA's Region 4 Office; and Dr. Marcia Crosse, Director of Public Health and Military Health Care issues in the Government Accountability Office, GAO.

Mr. Amon, are you going to testify? OK. We got everybody at the table.

As you know, it is the policy of this committee to take testimony under oath. Please be advised that, under the rules of the House, you have the right to be advised by counsel during your testimony.

Any of you wish to be advised by counsel during your testimony? There are no indications. I think everyone does not wish to be represented by counsel. I am going to ask you to rise and raise your right-hand, please.

[Witnesses sworn.]

Mr. Stupak. I would like the record to reflect all witnesses answered in the affirmative. We will now begin with our 5-minute opening statements from our witnesses. We will start on the righthand side.

Mr. Murtha.

STATEMENT OF PETER J. MURTHA, DIRECTOR, OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. Murtha. Thank you, Mr. Chairman and members of the subcommittee. I am Peter J. Murtha, and have been Director of the Office of Criminal Enforcement, Forensics and Training, at U.S. EPA since November 2003. Previously, I spent over 16 years as a Federal prosecutor. Thank you for inviting me to appear today to discuss the agency's criminal investigation relating to contaminated drinking water at Camp Lejeune and the decision not to proceed with Federal criminal charges. Mr. Chairman and members of the subcommittee, EPA respects your oversight interests.

I would like to acknowledge that Special Agent Amon is present here today at the committee's request. However, I would like to note for the record that EPA has objected to the subcommittee seeking the testimony of a field agent such as Special Agent Amon. We have outlined our reasons and offer of accommodation in a letter that we sent to the subcommittee. Nonetheless, given the unique and compelling circumstances surrounding this hearing, Special Agent Amon is available to testify if the subcommittee finds that necessary.

In bringing this investigation, we were acutely aware of the anguish and deeply held feelings of the former military and civilian residents of Camp Lejeune who brought the allegations. And I can say that we were especially careful to conduct this investigation as comprehensively as possible. The criminal investigation was opened in October 2003. The investigation was conducted by a senior criminal investigator out of the CID's

division in Charlotte, North Carolina. I have conferred extensively with that investigator for my testimony here today. The investigation was also closely monitored by CID headquarters in Washington. Close and ongoing consultation was maintained with both DoJ's Environmental Crimes Section and the U.S. Attorney's Office in Raleigh, North Carolina. Investigators examined events surrounding the generation of the 1980 through 1982 water sampling results provided by the U.S. Army Environmental Hygiene Agency and by the Grainger Laboratory. The latter report definitively identified the presence of TCE and PCE in Camp Lejeune's drinking water in 1982.

The initial reaction to and decisions made by the military after having received these two sets of data was important background information for the investigation. CID investigators interviewed 26 individuals, including personnel from Camp Lejeune and the Navy Facilities Engineering Command Atlantic Division, or LANTDIV, which had oversight responsibility for environmental conditions at the base during this period; consulted extensively with an expert in public health and drinking water regulation; and reviewed thousands of pages of relevant documents during the course of this investigation. After about 18 months of investigation, and a thorough review of all the pertinent evidence, the agency and DoJ mutually agreed that criminal charges should not be sought in this matter. That decision was primarily based on the following findings.

First, the Safe Drinking Water Act provided no enforceable limits on TCE and PCE at the time that military officials became aware of the presence of these chemicals in the water supply at the base. EPA did not pass enforceable regulations relating to these chemicals until 1989 and 1991, respectively.

I should also mention, parenthetically, even if those standards had been in place, the Safe Drinking Water Act does not provide criminal penalties for knowingly providing drinking water which violates standards. Rather, the act only provides criminal penalties for introducing contaminants with specific intent to harm.

Second, the statute of limitations for all substantive Federal crimes is 5 years. Thus, even had there been criminal conduct committed in the 1980's, it would not have been prosecutable in 2005 unless it formed a part of a criminal conspiracy that continued to a point within the limitations period. The investigation found no such ongoing conspiracy by any persons with a role providing drinking water at Camp Lejeune. The investigation concluded that there was no conspiracy to conceal records and prevent persons from talking with ATSDR regarding the congressionally mandated health study or to conceal FOIA records from the public. The investigation further determined that the Marine Corps did not make false statements to Federal investigators and that there was no basis on which to prosecute LANTDIV personnel for false statements or obstruction of the investigation.

Finally, with regard to the allegations regarding the ATSDR, the investigation did not substantiate allegations of a conspiracy to improperly administer its health study or destroy ATSDR records.

In summary, DoJ and EPA concluded that when all the available evidence was considered under the environmental requirements applicable at the time of the relevant activities in this case, the evidence did not support the bringing of Federal criminal charges. Harm occurred at Camp Lejeune and individuals suffered. However, after a thorough investigation, it was determined that the criminal enforcement process was not a viable means of addressing those wrongs. Thank you for the opportunity to testify here today, and I would be glad to answer any questions from the subcommittee.

[The prepared statement of Mr. Murtha follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Stupak. OK. Thank you.

Mr. Amon, you wish to say anything?

Mr. Amon. I have no opening remarks.

Mr. Stupak. OK. Dr. Crosse?

STATEMENT OF MARCIA G. CROSSE, DIRECTOR, PUBLIC HEALTH AND
MILITARY HEALTH CARE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY
OFFICE

Ms. Crosse. Mr. Chairman and members of the subcommittee, I am pleased to be here today as you examine issues relating to drinking water contamination at Camp Lejeune. My remarks today are based on GAO's recent report on efforts to identify and address the past contamination; the provision of funding and information from DoD to ATSDR for its work; and an assessment by an independent panel of experts of the design of the current ATSDR health study.

Efforts to identify and address past drinking water contamination at Camp Lejeune began when the Navy started water testing to prepare for upcoming drinking water regulations. In 1980, volatile organic compounds, VOCs, were first detected during an analysis that combined treated water from all base water systems. During the same year, the Navy began monitoring Camp Lejeune's treated water for total trihalomethanes, TTHMs, contaminants that are a byproduct of the water treatment process. These tests reported interference from unidentified chemicals. In 1982 and 1983, additional testing identified two VOCs, trichloroethylene, TCE, a metal degreaser, and tetrachloroethylene, PCE, a dry cleaning solvent in the Hadnot Point and Tarawa Terrace water systems. Sampling results indicated that the levels of TCE and PCE found in the treated water varied.

Former Camp Lejeune environmental officials told us that they did not take action to address the contamination because, at that time, they had little knowledge about TCE and PCE, and there were no drinking water regulations that gave enforceable limits for these chemicals. In addition, the variation in water testing results raised questions about the validity of the tests. Camp Lejeune officials told us that, in retrospect, it was likely that rotation of wells in these water systems contributed to the variation in results.

Also, in 1982, a Navy environmental program began investigating potentially contaminated sites at many Marine Corps and Navy bases, including Camp Lejeune. Testing initiated under that program in 1984 and 1985 identified individual wells in the Hadnot Point and Tarawa Terrace water systems that were contaminated with TCE, PCE and other VOCs. Ten wells were subsequently removed from service in late 1984 and early 1985.

Since 1991, ATSDR has been examining whether individuals who were exposed to the contaminated drinking water are likely to have adverse health effects. DoD is required to provide funding and data as necessary for ATSDR to carry out certain health-related activities, including Public Health Assessments. In conducting its Camp Lejeune related work, ATSDR has not always received requested DoD funding and has experienced delays in receiving information from DoD. For example, for 3 out of the 16 fiscal years, no funding was provided by any DoD entity to ATSDR for its Camp Lejeune related work because the agencies could not reach agreement about the funding. ATSDR also had difficulties getting documents needed from Camp Lejeune while it was conducting a Public Health Assessment for the base. However, ATSDR officials told us that, while funding and access to records were probably slowed down and made more expensive by DoD, this did not significantly impede ATSDR's efforts. These officials also stated that situations such as limitations in access to data are normal during the course of a study.

ATSDR's current study is examining whether individuals who were exposed in utero are more likely to have developed certain childhood cancers or birth defects. To review the design of this study, we contracted with the National Academy of Sciences to convene an expert panel. Panel members generally agreed that many parameters of the current study are appropriate, including the study population, the exposure time frame and the selected health effects. Some panel experts said that the projected December 2007 completion date appeared to be reasonable, while others said that the date might be optimistic.

Finally, these experts said that the ATSDR study could be strengthened by expanding it to include an additional comparison population of individuals who were not exposed to the contamination but that this would likely extend the time needed to complete the study. They also noted that while the in utero population being studied was the most vulnerable to the contamination, other health conditions, such as adverse neurological or behavioral effects and pregnancy loss, could be related to this exposure.

Mr. Chairman, this concludes my prepared remarks. I would be happy to respond to questions that you or other members of the subcommittee may have.

[The prepared statement of Ms. Crosse follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Stupak. Thank you.
Mr. Hill, you opening statement, please?

STATEMENT OF FRANKLIN HILL, DIRECTOR, SUPERFUND DIVISION, U.S.
ENVIRONMENTAL PROTECTION AGENCY, REGION 4

Mr. Hill. Mr. Chairman and members of the subcommittee, I am Franklin Hill, Director of the Superfund Division for the U.S. Environmental Protection Agency in region 4 in Atlanta.

The Superfund Division oversees cleanups of private and public property that is on the National Priorities List, a list of the country's most polluted sites. And we do that with a goal of protecting human health and the environment.

Currently, there are 165 private sites and 19 Federal sites on the NPL in region 4. I appreciate the opportunity to provide you with an overview of EPA's involvement in the Superfund cleanup activities at Camp Lejeune Military Reservation and Marine Corps Base. During the 18 years that EPA has been involved in cleanup at Camp Lejeune, we have made significant progress in cleaning up contaminated soil and groundwater. To date, we have selected remedies at 30 sites within Camp Lejeune and anticipate selection of the last remedy in the year of 2011. EPA region 4 received a letter dated April 25, 1986, from the Department of the Navy which provided sampling data from water samples taken from groundwater monitoring and drinking water wells at Camp Lejeune. The letter informed EPA that the Navy had shut down 10 drinking water wells at Camp Lejeune because 1985 sampling results showed contamination in those wells. The State of North Carolina, in a separate investigation, concluded that the likely source of contamination found in two of those wells was the ABC One-Hour Cleaners, a private business located outside the boundaries of Camp Lejeune. Subsequent investigations have revealed additional sources of groundwater contamination.

The ABC One-Hour Cleaners: the ABC Cleaners site is located at 2127 Lejeune Boulevard Jacksonville, Onslow County, NC and encompasses an area of approximately 1 acre. In 1984, as part of a routine water quality evaluation, the Navy collected groundwater samples and determined that volatile organic compounds, including dichloroethylene, trichloroethylene and tetrachloroethylene, were present in 10 of 40 well samples. Two of the 10 wells were located within the Camp Lejeune Tarawa Terrace well field in the vicinity of the ABC Cleaners.

In 1985, the Wilmington Regional Office of the Division of Environmental Management, North Carolina Department of Natural Resources and Community Development, conducted a groundwater pollution study to find the source of PCE in wells within the Tarawa Terrace well field. The study concluded that most likely the source of groundwater contamination was ABC Cleaners. The ABC One-Hour Cleaners was proposed to the National Priorities List by EPA on June 24, 1988, which became final on March 31, 1989.

A record of decision, as we refer to as a ROD, for contaminated groundwater was signed in 1993 and required remediation of VOC-contaminated groundwater by a treatment system. A second ROD was signed in 1994 to address soil contamination using soil vapor extraction. The SVE system has been operating since August 2000 to remove a source of groundwater contamination. ABC Cleaners site is a private Superfund lead site and is not part of the Camp Lejeune military base. However, contaminated groundwater from ABC Cleaners has migrated onto the base.

The responsible parties have been identified by EPA as the ABC Cleaners owners and operators. On July 17, 2000, EPA entered into an Administrative Order of Consent with ABC Cleaners and its owners and operators for settlement. The AOC required that, if settling parties ever receive payment on an insurance claim, then 50 percent of any insurance proceeds must be paid to EPA. At this time, the terms of the settlement have been completed, and there is no evidence that the parties collected insurance money.

Camp Lejeune: Under CERCLA, section 120, the EPA has evaluated releases at this Federal facility using its Hazard Ranking System criteria. The EPA conducted an initial investigation in 1988 and proposed Camp Lejeune for the NPL on June 24, 1988, which became final on October 4, 1989. The basis

for the listing of Camp Lejeune on the NPL was pesticide-contaminated soil at an area on the base where pesticides were mixed and application equipment were cleaned.

Pursuant to CERCLA 120(e)(2), an interagency agreement, referred to as a Federal Facilities Agreement, was signed by EPA and the Navy and the State of North Carolina in February 1991. The FFA requires, among other things, that the facility prepare a Site Management Plan for EPA approval that identifies all of the sites and operating units that require further investigation and/or response action by the Navy. The Navy's Installation Restoration Program is responsible for implementation of the CERCLA cleanup under the FFA. The Site Management Plan also includes a list of enforceable milestones related to CERCLA that are enforceable by EPA.

Additional activities: 46 sites have been identified for cleanup at Camp Lejeune. The Navy and EPA have selected remedies for 30 of those sites, and the remaining 16 are under active investigation. The first ROD was signed in September 1992 and addressed contamination of groundwater in the Hadnot Point area. Remedies to address groundwater contamination include groundwater pump and treatment systems, in situ chemical oxidation, and monitoring natural attenuation. Six pilot studies are under way to evaluate treatment options for remaining VOC-contaminated groundwater areas at Camp Lejeune. EPA prepared 5-year review reports in November 1999 and February 2005, which evaluated the protectiveness of selected remedies. Below is a summary of the cleanup. Eleven pilot studies have been completed or are under way to evaluate remediation techniques for volatile organic compounds. Removal actions have been completed at two sites, which resulted in disposal of 696 tons of PCB-contaminated soil and source treatment of 7,500 cubic yards of dense nonaqueous phase liquids. A removal action is under way to treat VOC-contaminated groundwater of depths of 20 to 47 feet below ground surface. Two RODs were signed in 2006. One ROD required treatment of contaminated groundwater underneath a half acre of the base. This remedy is underway.

The other ROD determined that no action was necessary. One Operable Unit has met its remediation goals and achieved site closure. Three sites have undergone site investigations, with two requiring no further action, and the remaining site requiring a soil removal. At this point in time, Camp Lejeune is scheduled to have the last remedy selected by 2011 and all remedies in place by 2014.

In conclusion, in the 18 years since EPA listed Camp Lejeune on the NPL, 46 sites have been investigated. To date, there are 19 signed RODs, encompassing 30 sites at the Camp Lejeune base, which reflect a remedy selection rate greater than one ROD per year. The remaining 16 sites are undergoing active investigation. EPA anticipates that the last remedy will be in place by 2015. Thank you for this opportunity, and I am available to answer questions.

[The prepared statement of Mr. Hill follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Stupak. Thank you.

We will begin questioning. Mr. Hill, if I may start with you, you said you are going to finish in up by 2015?

Mr. Hill. Well, in the Site Management Plan, that is the schedule to address getting the remedies in place. Now what I will tell you is that those remedies will go on for years after 2015. Pump and treat is a complicated technology.

Mr. Stupak. I am familiar with it.

Mr. Hill. And it takes quite some time to get there.

Mr. Stupak. Camp Lejeune was listed in 1989. That was when it was final, you said. Here we are 18 years later, and nothing has been cleaned up; has it?

Mr. Hill. Well, we have a couple of sites that we have removed, or we have decided that they have reached their remedial goals. We have had some soil----

Mr. Stupak. You are close?

Mr. Hill. We have had a number of cleanups on the site. So the answer to your question, sir, is yes, there have been some cleanups.

Mr. Stupak. Of the 46 sites, how many have been cleaned up?

Mr. Hill. That is a good question. I don't want to guess at that, but I know that there are several removals that have been completed.

Mr. Stupak. OK.

Mr. Hill. I can get you those specifics, but I don't have the specific numbers.

Mr. Stupak. You won't even get to your last ROD, I think your testimony said, until, what, 2014?

Mr. Hill. Right.

Mr. Stupak. Your Record of Decision; so that is 25 years after Camp Lejeune was named a Superfund site. What is causing the delay? Lack of money? Lack of resources? Why delay? Why 25 years?

Mr. Hill. Well, I think it is a combination of things. I think it is, resources, clearly, is one option or one issue.

Mr. Stupak. Who should be providing the resources for this? EPA? DoD? Who should be providing the resources to clean up Camp Lejeune?

Mr. Hill. DoD should be providing those resources.

Mr. Stupak. OK. Has DoD been forthcoming in bringing resources to the table to help clean up Camp Lejeune?

Mr. Hill. They have been. Of course, as all budgets, we are seeing those budgets start to diminish.

Mr. Stupak. But the pollution at Camp Lejeune is not diminishing.

Mr. Hill. I would say that it is. Based upon some of the monitoring data, those numbers are going down.

Mr. Stupak. Based upon migrating over somewhere else or where?

Mr. Hill. No. Actually, we have three pump and treat systems in place right now at the Hadnot Point area. And we can demonstrate from the monitoring data that those concentrations that were listed in the GAO report are now going down.

Mr. Stupak. The part that bothers me a little bit, you mentioned ABC Cleaners, which is just on the outside of Camp Lejeune. The ROD was what, 1989, and it was cleaned up in 1994? It took about 5 years to do that. That is on an acre. And that was the contamination that drifted over to Tarawa Terrace. How come you got that one cleaned up in like 5 years, and yet we are 25 years and not even getting cleaned up?

Mr. Hill. Chairman, let me correct you. First of all, ABC Cleaners is not cleaned up. We have a remedy in place, and it is construction complete. We have built a groundwater pump and treat system, and we have an SVE system addressing soils on-site.

Mr. Stupak. So it is still going?

Mr. Hill. It is still going.

Mr. Stupak. So the ROD was 5 years.

Mr. Hill. Right.

Mr. Stupak. And your last ROD still isn't done for Camp Lejeune. So there is a pumping station. How long will that go on, that pumping station at ABC Cleaners?

Mr. Hill. It will go on until we achieve the remedial goals for that site. And right now, we are looking at North Carolina standards, which is about 2.8 parts per billion for TCE. So that is quite a conservative number. And it will take us some time to achieve that.

Mr. Stupak. OK. Thank you.

Mr. Amon, were you here for the first panel testifying? Were you in the room?

Mr. Amon. Sir, I believe I walked in towards the end of that testimony.

Mr. Stupak. All right. Are you familiar with Mr. Ensminger?

Mr. Amon. I am.

Mr. Stupak. OK. In his written testimony, he states you told him you recommended criminal charges against certain subjects. That was part of your investigation. Is that correct?

Mr. Amon. That is not correct.

Mr. Stupak. OK. You didn't make any recommendations?

Mr. Amon. I just collect the facts, the evidence, and present that to my supervisors, and then, in this case, the Department of Justice, for consideration.

Mr. Stupak. OK. Do you present that in writing or orally?

Mr. Amon. Both.

Mr. Stupak. OK. And you made no recommendations of any charges?

Mr. Amon. That is correct.

Mr. Stupak. OK. And why did you recommend no criminal charges?

Mr. Amon. In this matter, based upon the evidence in all forms that I was able to review, I presented that to the Department of Justice, I presented that to my supervisors, and based upon that analysis, a determination was made that the statute did not call for Federal charges. And I concurred with

that analysis.

Mr. Stupak. OK. I realize, and testimony has been clear, that Justice Department decided not to prosecute because of a lack of EPA standards on TCE and PCE in drinking water in the early 1980's. But given the report that we reviewed, and I believe it is your report, that the evidence of witness coaching and witnesses not being forthcoming, shouldn't you have at least thought about obstruction of justice charges?

Mr. Amon. And those charges were considered.

Mr. Stupak. So criminal charges were considered on obstructing justice?

Mr. Amon. That is correct, sir.

Mr. Stupak. OK. And then who determined not to bring forth the charges?

Mr. Amon. The Department of Justice ultimately makes decisions on what is charged.

Mr. Stupak. Did you recommend that there would be obstruction of justice charges brought forth? Did you recommend?

Mr. Amon. Did I personally, Tyler Amon?

Mr. Stupak. Yes.

Mr. Amon. In this matter, specifically as it pertains to the obstruction charges that you are indicating from, I believe, a report that I generated during the course of this case, I concurred with the Department of Justice's decision not to proceed with charges.

Mr. Stupak. OK. But I am trying to ask you, did you recommend that obstruction charges be brought? Obstruction of justice charges.

Mr. Amon. As a field agent, recommend is an action that is not---

Mr. Stupak. OK. When you do your investigation, you send it to the prosecutor for action; right?

Mr. Amon. That is correct.

Mr. Stupak. And you indicated you submitted that written and orally; correct?

Mr. Amon. That is correct.

Mr. Stupak. So, in your oral discussions with Justice Department, did you ask for, did you seek obstruction of justice charges?

Mr. Amon. In my report, which would be written, I do identify areas of concern related to obstruction of justice; that is correct.

Mr. Stupak. Correct. OK. So did you ask for a warrant? Let me put it bluntly.

Mr. Amon. No, I did not.

Mr. Stupak. OK. How about the doctor who destroyed the records as to the telephone logs? Did you ask for obstruction of justice there?

Mr. Amon. I am sorry, refresh my memory.

Mr. Stupak. Page 56 of your report, if you have it there in front of you, unredacted report. You must have it with you there; right? It is on page 56.

Mr. Amon. That is correct. I see that here. Could you repeat the question, please?

Mr. Stupak. Sure. And if you go down there, that report, about third paragraph says, while it is not clear blank gave a direct order to destroy the records, it is clear that blank fully expected and specifically advised blank not to take any Camp Lejeune records from the Division of Health Studies. And you go down that those records never made it to the records, and they were destroyed. Did you recommend obstruction of justice charges there?

Mr. Amon. Sir, in regard to the ATSDR records, those records actually never were destroyed.

Mr. Stupak. OK. Not the ATSDR, but the individual's notes. And those notes are important because it identifies names, numbers and medical information that this individual had conducted over a year in their capacity. And those personal records were destroyed; not ATSDR, but those personal records, which would be useful, as you indicate, in this investigation.

Mr. Amon. Sir, the records that you speak of that pertain to a doctor who was involved in the Camp Lejeune matter on behalf of ATSDR, had records that were kept in the course of that doctor's work at ATSDR. But I think, fairly, as you are indicating, they were records that were taken in booklets and whatnot that that doctor retained. I actually seized those records from that doctor and retained those in evidence in the criminal investigations file in Charlotte, North Carolina, until the conclusion of this case.

Mr. Stupak. OK. Where are they now then?

Mr. Amon. They are now at ATSDR.

Mr. Stupak. OK. You indicate in your criminal investigation that the biggest area of concern were the seemingly rehearsed statements provided by personnel at LANTRDIV. That is on page 29. And you go on to page 30, greatest concern lay in the fact that investigators found LANTRDIV personnel--that's Naval Facilities Engineering Command personnel--to have been coached. Is that true?

Mr. Amon. That is correct.

Mr. Stupak. And there were no violations of any laws there, obstruction of justice, there in all the coaching?

Mr. Amon. Again, I provided those to the Department of Justice in my hierarchy for consideration. Those statements, those statements you see there in the report were a summary of what the evidence in this case, referring to both documentary and testimony evidence, that I was able to review. And based upon that, I wrote how I saw it.

Mr. Stupak. Mr. Whitfield for questions.

Mr. Whitfield. Thank you, Mr. Chairman.

Mr. Murtha referred to a letter that he wrote to Mr. Dingell regarding this hearing. And if there is not any objection, we would just like to enter that into the record. I think you all have a copy of it as well.

Mr. Stupak. Without objection, the letter of June 11, 2007, is entered in the record. And we should enter in the record my response is, Mr. Amon will be here and will testify.

Mr. Whitfield. Great. Thank you. Now, Mr. Hill, ABC Cleaners, that was one of the primary sources of this contamination. Who was the owner of ABC Cleaners?

Mr. Hill. I don't have the name. I just have a reference to the owner and operators.

Mr. Whitfield. But, at that time, there was not any criminal activity or any criminal charges that could be brought against ABC Cleaners?

Mr. Hill. No, sir.

Mr. Whitfield. Because there were no laws on the books relating to contaminating groundwater and so forth?

Mr. Hill. I wouldn't say that there were no laws on the books, that if there was criminal activity.

Mr. Whitfield. It was probably negligent activity.

Mr. Hill. I would possibly agree with that. But it was never investigated as a criminal act.

Mr. Whitfield. So it was never investigated as a criminal act. Now, do you have any idea of what the dollar cost will be for the cleanup of Camp Lejeune, the total cleanup?

Mr. Hill. I don't. And we were trying to get to some final dollar figures. We have estimated that we have already spent upwards of \$100 million, but I don't have the detailed dollar amounts.

Mr. Whitfield. \$100 million has already been spent?

Mr. Hill. That is an estimate on my part, just based upon some discussions I had this morning. We would have to talk to DoD to get those figures.

Mr. Whitfield. And since there hasn't been very much of a cleanup, I am assuming that we can multiply that by a relatively large number.

Mr. Hill. Well, again, we make reference that there has not been much of a cleanup. I just want to go back and reassure you that there has been a tremendous amount of work.

Mr. Whitfield. OK.

Mr. Hill. A lot of aggressive soil surface excavation work has been done. Groundwater pump and treatment systems are in place. Treatability studies in the field. So a lot of work has been done here.

Mr. Whitfield. But the ultimate costs, would it be equal to a billion dollars? Would you say that is possible?

Mr. Hill. I would hate to speculate on the costs, but I can get back with you on an estimate.

Mr. Whitfield. OK. Of course, the dollar cost is very small considering the health costs that have been incurred and the deaths that have been incurred. But ultimately the taxpayers will be paying for this. Is that correct?

Mr. Hill. Yes.

Mr. Whitfield. You did indicate that you had reached an agreement or a settlement with ABC Cleaners. But I assume the only dollar amount you would get from them was from the insurance policy, and they never received any compensation. Is that correct?

Mr. Hill. We actually have an ability-to-pay process where

we looked at the owners and operators' capability to pay, and there was an amount that they were able to pay. And they came forward with that amount.

Mr. Whitfield. They did?

Mr. Hill. Yes.

Mr. Whitfield. So they did pay something?

Mr. Hill. They did pay something.

Mr. Whitfield. And they are no longer in business?

Mr. Hill. The individuals at that time I am not sure are still operating the business, but it is my understanding that it is now still a drop-off cleaners operation.

Mr. Whitfield. Oh, it is? OK.

Mr. Amon, do you work for the Department of Justice or EPA?

Mr. Amon. I work for the Environmental Protection Agency.

Mr. Whitfield. And you report to Mr. Murtha?

Mr. Amon. Through a series of a hierarchy, yes.

Mr. Whitfield. OK. But when you do criminal investigations for EPA, the Department of Justice, they actually bring any charges through their U.S. Attorneys if there are charges. Is that correct? Or do you all have the authority to bring charges as well?

Mr. Murtha. No, sir, we work through the Department of Justice, both the U.S. Attorney's Offices and the Environmental Crimes Section of main Justice. Both were involved in this particular investigation.

Mr. Whitfield. I know that--I am sure, Mr. Murtha, that you and Mr. Amon both sat in with the Department of Justice when you were considering the criminal charges in this case. And I am not defending Mr. Libby at all, Vice President Cheney's chief of staff who is now in prison for divulging--he is not in prison yet. He has been convicted. He has been sentenced. But for divulging the name of an undercover agent. And in this instance, we have many people who have died. We have had many people who have suffered significant health problems. We have huge environmental costs involving cleanup. And some of the phrases used regarding the Navy Engineering's testimony and how they were not forthcoming, how they had been coached, how they seemed to be concealing, and it seems sort of puzzling that there were not some sort of obstruction of justice charges levied in that case.

Mr. Murtha. Sir, if I may respond to that?

Mr. Whitfield. Yes.

Mr. Murtha. I was not in fact involved in any of the discussions concerning whether or not charges would be brought in this case. I felt a lot of comfort in knowing that both the U.S. Attorney's Office and Environmental Crimes Section had assigned very experienced and talented prosecutors to this case to work along with Special Agent Amon. And I really felt that a very strong team had been put together in that connection and that they would be closest to the evidence and would be in the best position to assess whether or not charges would be advisable.

I think one also has to bear in mind, although clearly there is some derogatory information in the investigation that we put together, that it is really a higher bar to bring criminal charges. Under the principles of Federal prosecution, the Department of Justice prosecutors need to make sure that they have a reasonable probability of succeeding on the charges that they bring. And I think the feeling must have been here that, even though there was evidence of not being forthcoming, that that evidence didn't quite reach the level where there could be a reasonable probability that convictions would be obtained.

Mr. Whitfield. OK. Thank you.

Ms. Crosse, the GAO spent a lot of time investigating this drinking water contamination at Camp Lejeune. And I would ask you, we know that there are some other military bases with similar problems, and would you have any recommendations on how the committee should proceed with a review of contamination at other military bases?

Ms. Crosse. Sir, I'm not familiar with the circumstances of contamination at other installations. We were mandated by Congress in the Defense Authorization Act to undertake this review. I just don't have information to know about the level of documentation or the kinds of circumstances involved. Certainly GAO is available to review cases, individual cases, or to take a broader look at environmental contamination on military installations around the country.

Mr. Whitfield. OK.

Mr. Chairman, I don't have any other questions.

Mr. Stupak. Just a few, if I may.

Mr. Hill, where's the water source now for Camp Lejeune? Are they getting it from nearby cities? Have they drilled other wells?

Mr. Hill. They're getting it from the Castle Hayne aquifer on the base.

Mr. Stupak. Still wells then?

Mr. Hill. Yes.

Mr. Stupak. Are you monitoring at all to see if there's going to be migration of these contaminants into the other wells on the base?

Mr. Hill. We do have monitoring wells throughout the base, and also the Drinking Water Program is monitoring the distribution of the drinking water for Camp Lejeune.

Mr. Stupak. OK. Thanks.

Mr. Amon, if I may, Mr. Whitfield asked some good questions about, whatever happened or why weren't obstruction of justice charges brought forth on this? When you did your report, who would you have had to have briefed within your own agency at EPA then in seeking these charges? Who would you brief?

Mr. Amon. The special agent in charge. In this case that would have been the SAC in Atlanta, Georgia, that has coverage over multiple States, including North Carolina.

Mr. Stupak. So that's special agent in charge or something?

Mr. Amon. That's correct.

Mr. Stupak. Who would that be?

Mr. Amon. Fred Burnside.

Mr. Stupak. OK. Did you ever deal directly with Department of Justice then? U.S. attorney?

Mr. Amon. I did.

Mr. Stupak. Who did you deal with there?

Mr. Amon. I dealt primarily with two line prosecutors. In this case, there was one assigned by the United States Attorney's Office in Raleigh, NC, which falls in the eastern district of North Carolina. And the second was, as the director referenced before, main Justice has a Special Environmental Section. In that case, that was a trial attorney named Stacey Mitchell.

Mr. Stupak. OK. Who was the gentleman out of North Carolina?

Mr. Amon. Banu Rangarajan. She is female

Mr. Stupak. OK. Anything else? Nothing further for this panel. You are dismissed. Thank you again.

Mr. Whitfield, without objection, I would like to put the full binder into the record, and your June 11 record is also in there, that one document. No objections.

The record will remain open for 30 days for further statements, opening statements of members or any other documents which the committee has requested. If people would get them into us, they will be made part of the record. That concludes all of our questions. We will dismiss this panel, and that concludes our hearing.

Without objection, this subcommittee meeting is adjourned. Thank you all.

[Whereupon, at 2:01 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Exhibit 22

Municipal/Public Tap Water Contaminated with TCE at Concentrations Above EPA MCL 5 ppb

DOORMA DOOR CONTROLS INC HSCA PAD002295376 17 parts per billion (ppb)

FORMER HULETT LAGOON MOSFN0703530 23.7 parts per billion (ppb)

GEAUGA INDUSTRIES OHD061722575 30 parts per billion (ppb)

GRAFTON WISCONSIN RESIDENTIAL WELL WI0001906981 200parts per billion (ppb)

BOHN HEAT A-C&R DV ILD065243172 730 parts per billion (ppb)

HAWTHORNE MUNICIPAL WELLS NJD980771679 48.6 parts per billion (ppb)

ICELAND COIN LAUNDRY AREA GW PLUME NJ0001360882 41.7 parts per billion (ppb)

LEE CHEMICAL MOD980853519 36 parts per billion (ppb)

NEWTON COUNTY WELLS MOD985798339 190 parts per billion (ppb)

SOL LYNN/INDUSTRIAL TRANSFORMERS TXD980873327 953,000 (ppb)

VEGA ALTA PUBLIC SUPPLY WELLS PRD980763775 42 parts per billion (ppb)
Groundwater Used as Municipal/Public Drinking Water
Contaminated with TCE at Concentrations Above EPA MCL 5ppb
ARIVEC CHEMICALS INC GAD990740714 39000 parts per billion (ppb)
AVCO LYCOMING (WILLIAMSPORT) PAD003053709 250 parts per billion (ppb)
BALLY GROUND WATER PAD061105128 1127 parts per billion (ppb)
BREWSTER WELL FIELD NYD980652275 77parts per billion (ppb)
CARRIER AIR CONDITIONING CO. TND044062222 8.8 parts per billion (ppb)
CHARLEVOIX MUNICIPAL WELL MID980794390 100 parts per billion (ppb)
CLARE WATER SUPPLY MID980002273 1400 parts per billion (ppb)
CROSSLEY FARM PAD981740061 20000 parts per billion (ppb)
CSX/LEWISBURG DERAILMENT TND987775566 45300 parts per billion (ppb)
DELAVAN MUNICIPAL WELL #4 WID980820062 1300 parts per billion (ppb)
FARIBAULT MUNI WELL FIELD MND982074569 180 parts per billion (ppb)
FRIDLEY COMMONS PARK WELL MND985701309 79 parts per billion (ppb)
FULTON AVENUE NY0000110247 1000 parts per billion (ppb)
GEIGY CHEMICAL CORP. (ABERDEEN) NCD981927502 330 parts per billion (ppb)
GROVELAND WELLS MAD980732317 118.8 parts per billion (ppb)
HAWTHORNE MUNICIPAL WELLS NJD980771679 572 parts per billion (ppb)
HOOKER CHEMICAL & PLASTICS CORP NYD002920312 87 parts per billion (ppb)
INDIAN BEND WASH AREA AZD980695969 1400 parts per billion (ppb)
INDUSTRIAL LATEX CORP. NJD981178411 89 parts per billion (ppb)
INDUSTRIAL WASTE PROCESSING CAD980736284 390 parts per billion (ppb)
JACKSON STEEL NYD001344456 250 parts per billion (ppb)
KELLOGG-DEERING WELL FIELD CTD980670814 600 parts per billion (ppb)
KENTUCKY AVENUE WELL FIELD NYD980650667 130 parts per billion (ppb)
LASALLE ELECTRIC UTILITIES ILD980794333 5 parts per billion (ppb)
LIBERTY INDUSTRIAL FINISHING NYD000337295 16 parts per billion (ppb)
LODI MUNICIPAL WELL NJD980769301 324.0 parts per billion (ppb)
MAYWOOD CHEMICAL CO. NJD980529762 324.0 parts per billion (ppb)
METALTEC/AEROSYSTEMS NJD002517472 5140 parts per billion (ppb)
MOSES LAKE WELLFIELD WAD988466355 32.2 parts per billion (ppb)
NORTH PENN - AREA 7 PAD002498632 190 parts per billion (ppb)
NORTH RAILROAD AVENUE PLUME NMD986670156 8.3 parts per billion (ppb)
OAK GROVE VILLAGE WELL MOD981717036 70.8 parts per billion (ppb)
OGALLALA GROUND WATER NED986369247 220 parts per billion (ppb)
OLD ROOSEVELT FIELD NYSFN0204234 170 parts per billion (ppb)
PALERMO WELL FIELD WA0000026534 15.0 parts per billion (ppb)
PASLEY SOLVENTS & CHEMICALS, INC NYD991292004 145 parts per billion (ppb)
PETOSKEY MUNICIPAL WELL FIELD MID006013049 1000 parts per billion (ppb)
PINE STREET DUMP MND985739051 48 parts per billion (ppb)
POTTER CO. MSD056029648 848 parts per billion (ppb)
RAILROAD AVENUE GROUNDWATER IA0001610963 6.8 parts per billion (ppb)
REICH FARMS NJD980529713 33 parts per billion (ppb)
ROCKY HILL MUNICIPAL WELL NJD980654156 650 parts per billion (ppb)

ROCKAWAY TOWNSHIP WELLS NJD980654214 362 parts per billion (ppb)
RODALE MANUFACTURING CO. PAD981033285 150 parts per billion (ppb)
SAEGERTOWN INDUSTRIAL AREA PAD980692487 310 parts per billion (ppb)
SAN GABRIEL VALLEY (AREA 1,2,3,4) CAD980818512 1800parts per billion (ppb)
SAN FERNANDO VALLEY (AREA 1) CAD980894893 18000 parts per billion (ppb)
SAVAGE MUNICIPAL WATER SUPPLY NHD980671002 244 parts per billion (ppb)
SOLID STATE CIRCUITS, INC. MOD980854111 290 parts per billion (ppb)
SOUTH MUNICIPAL WATER SUPPLY NHD980671069 25 parts per billion (ppb)
SPACE ORDNANCE SYSTEMS SAND CYN 511 parts per billion
STURGIS MUNICIPAL WELLS MID980703011 152 parts per billion (ppb)
TOWN GARAGE/RADIO BEACON NHD981063860 148.4 parts per billion (ppb)
TUCSON INTERNATIONAL AIRPORT AZD980737530 2200 parts per billion (ppb)
TUTU WELLFIELD VID982272569 711 parts per billion (ppb)
VALLEY PARK TCE MOD980968341 600 parts per billion (ppb)
VEGA ALTA PUBLIC SUPPLY WELLS PRD980763775 574 parts per billion (ppb)
VESTAL WATER SUPPLY WELL 4-2 NYD980652267 974 parts per billion (ppb)
WAITE PARK WELLS MND981002249 5100 parts per billion (ppb)
WELLS G&H MAD980732168 267.40000 parts per billion (ppb)
WHITEHALL MUNICIPAL WELLS MID980701254 68 parts per billion (ppb)
ZANESVILLE WELL FIELD OHD980794598 330 parts per billion (ppb)

Source of information: ATSDR HazDat Database