

Senate Democratic Policy Committee Hearing

Monday, August 3, 2009
2:00 p.m. to 3:30 p.m.
628 Dirksen Senate Office Building

“The Exposure at Qarmat Ali: Did the Army Fail to Protect U.S. Soldiers Serving in Iraq?”

Hearing Transcript

SEN. DORGAN: I'm going to call the hearing to order. I'm Senator Byron Dorgan. I'm Chairman of the Senate Democratic Policy Committee, and this is the 20th hearing we've held over the years on the subject of contracting waste, fraud, and abuse, particularly in the war theater of Iraq and Afghanistan.

I'll be joined by a number of my colleagues, but in the interest of time, I want to begin reasonably on time, and when my colleagues join this hearing, we will invite them to give a very brief opening statement.

As I said, this is the 20th in a series of oversight hearings. On June 20th of last year, we held a hearing that revealed how Kellogg Brown & Root (KBR), at a site in Iraq had exposed both U.S. troops and its own workers, among others, to sodium dichromate, a highly toxic cancer-causing chemical.

This exposure took place in the spring and summer of 2003 at a water facility -- water treatment facility -- in Qarmat Ali, Iraq. In my judgment, the Army's response to this incident and to the findings of our hearing has been terribly inadequate. Sodium dichromate is a deadly poison. According to an expert that testified at our hearing last year, a grain of sand worth of sodium dichromate per cubic meter could lead to serious long-term health problems, including cancer.

This was the same toxic chemical that was the subject of a high-profile movie titled *Erin Brockovich*. In that case, the unsuspecting people of Hinkley, CA, were exposed to dangerous levels of this chemical in their drinking water, as a result of actions by the Pacific Gas and Electric Company.

In our previous hearing, we heard from a KBR whistleblower that was exposed to sodium dichromate at the site and described developing high levels of chromium in his blood and severe lung injuries. Another KBR whistleblower who was similarly exposed reported damage to his system, including a failed a thyroid, as well as kidney damage.

The fact that many people, including our troops, were exposed to this deadly chemical is beyond dispute. At the previous hearing, we took into evidence an internal Kellogg Brown & Root memo from August 2003, which included the following statements from KBR's own employees about exposure to sodium dichromate. These are from an internal KBR memo dated August 2003:

Quote: "Serious health problem at water treatment plant with a chemical called Sodium Dichromate."

Quote: "The problem seems worse than initially considered."

Quote: "People are potentially exposed to something that may be very dangerous."

Another quote: "Almost 60 percent of the people now exhibit symptoms."

Another quote: "This chemical has been on the ground since day one."

Quote: "Sodium Dichromate could have been dumped on the ground for quite a long time. We do not know how deep it is but it looks like it's greater than four feet."

Final quote: "Wind is blowing the product that is lying on the ground."

At our previous hearing, the person at this site for the contractor, Kellogg Brown & Root, who was in charge of safety -- this is the man responsible for safety -- went to the company and said we've got a problem. This site is not safe. The reaction of the contractor: to put this man on an airplane and fly him out of the country -- that was the reaction of Kellogg Brown & Root.

Months after hundreds of soldiers had been exposed; the Army tested a relatively small subset of the troops who were exposed. After testing, the Army very quickly declared there was no direct link between the symptoms and exposure to sodium dichromate. The Army said that the symptoms being reported could have been caused by sand or other irritants in Iraq.

But as we will hear at today's hearing, the tests given by the Army were inadequate. There is much evidence to suggest that exposure to sodium dichromate can lead, and is leading, to some very serious health problems for our troops.

I'm going to put my entire statement into the record, but I want to make this point: one might ask, well, why are we holding a hearing on something that happened in the year 2003. We've actually only just learned in the last year, and I held a hearing on it, that troops were exposed, workers for the contractor were exposed, and months after it was known sodium dichromate was all over that site, in very large bags -- bags were broke -- and the red compound, sodium dichromate, was blowing around the entire site.

Months after that was learned, only then did the contractor become alarmed. And not when the contractor's safety official warned the contractor that this was a serious -- potentially serious -- health problem. Then in the intervening period, the Department of the Army, in my judgment,

from the research that we have done, did not do the adequate testing, and developed conclusions based on inadequate testing that everything was fine.

It appears to me that everything is not fine. And the result of being exposed to sodium dichromate will show up five, ten, 20 years into the future. And that's why it's important, even now, to understand what has happened, who is responsible for it, and what kind of responsibility the contractor and the Department of the Army is taking for this exposure.

It is not my interest to alarm anybody, but it is my interest to get at the truth. Today we will hear from four U.S. soldiers who were exposed to sodium dichromate, and have been suffering some health problems as a result.

Russell Kimberling was an IN National Guard Company Commander and was exposed to sodium dichromate while serving at the site from June to August 2003.

Rocky Bixby, a Staff Sgt. from the OR National Guard and former U.S. Marine, was exposed to sodium dichromate on that site from April to June 2003.

Russell Powell, a former Medic with the WV National Guard, was similarly exposed during that period.

Glenn Bootay was a Combat Engineer for the 3rd Infantry of the U.S. Army, and was exposed in April 2003.

We'll also hear from Dr. Herman Gibb, who worked at the Environmental Protection Agency for 30 years, where he served as a Senior Science Advisor and Associate Director for Health, and wrote a definitive, award-winning study on the health risks associated with exposure to sodium dichromate. Among other things, Dr. Gibb will help us understand whether the Army's response to this situation has been adequate, and similarly, the contractor's response, and whether the serious health problems being reported are consistent with exposure to sodium dichromate.

Let me describe someone who will not be testifying today. This is the late Sgt. First Class David Moore, a platoon leader and a 20-year veteran of the IN National Guard. He was exposed to sodium dichromate at that site. He died in 2008 from lung disease after returning from Iraq.

The Sgt. was wheezing, unable to breathe, constantly coughing, yet doctors were mystified by the cause of the disease. Here is a picture of Sgt. Moore with his ten-year-old daughter, before his death.

In closing, let me say that we remember how difficult it has been from time to time to get our government to acknowledge certain things. Agent Orange is an example of that. This committee has dealt with contaminated water at military sites in Iraq. It was denied by the contractor and by the Department of the Army. I asked the Inspector General to do a report and they said "no this didn't happen" and it could have been a very serious situation.

Last week, we revisited the issue of soldiers being electrocuted in Iraq because of inadequate wiring by a contractor. A soldier is taking a shower, and is killed, not by enemy fire, but because he was electrocuted. A soldier is power-washing a Humvee and is killed because he is electrocuted. And the Army and the contractor denied the problems. In fact, told the first soldier's mother that he might have gone into the shower with a radio or some electrical device, which resulted in his death.

I asked the Inspector General to do an investigation. The Inspector General did an investigation and said no, none of this happened. And now there's an urgent requirement to go back to some thousands and thousands and thousands of facilities that were wired inadequately because third country nationals were hired as contractors, grounding wasn't done, they didn't understand English, didn't understand the wiring standards, and soldiers died. Five cases are now under criminal investigation.

So now today we gather to talk about sodium dichromate. What is the truth? What's happened? Which soldiers were exposed? What should we do about that? And not just soldiers but employees of the contractors as well.

I'd like to call on my colleagues for a brief opening statement before we hear from the witnesses. And let me call on Senator Bayh. And Senator Bayh has been very active, and very interested in working on these issues. I appreciate his leadership because I know that the IN National Guard has a significant stake in this issue. Senator Bayh, thank you.

SEN. BAYH: Thank you very much, Mr. Chairman. I have a prepared statement that with your permission I would ask to be entered into the record.

SEN. DORGAN: Without objection.

SEN. BAYH: We're here today to hear and learn from all of you, and not just to listen to ourselves. So I'd just like to make three quick points.

Number one, Senator Dorgan I would like to thank you and everyone at the Democratic Policy Committee (DPC). Without your focus on this, this set of circumstances would never have come to light. And the opportunity to make sure that it never happens again would not be before us. So I would like to thank you on behalf of the IN National Guard and all those of us who care about this for your determination and for your focus.

Secondly, I've got two principal interests in this. First, to ensure that all those of you who were exposed, and others who were potentially exposed, get the treatment to which you are entitled. You served our country honorably. You deserve the best medical care possible. We shouldn't put the burden of proof on you, because there are photographs of piles of this stuff sitting around there.

There is no doubt at all that people were exposed, so you shouldn't be in the position that Senator Dorgan was saying -- today, or five years, or ten years from now trying to go back and

prove that it was service related. So that's my principal concern, is to make sure that you are treated well and get the medical care you deserve.

And the second thing, Senator Dorgan, we want to make sure that this kind of thing never happens again. We need to look at gaps in the system. Why was there not a more timely notification to the Army? Why were the environmental assessments not done in an appropriate way? What needs to be put into place in future contracts to make sure this kind of thing never, ever happens again?

So once we get the appropriate care in place, we need to look at the contracting process. One other thing to my colleagues: why was the IN National Guard not notified in a timely way? This is of tremendous concern to General Umbarger, the Commander of our Guard. We need to look at the inter-Army procedures with regard to this as well.

Finally, to make sure that this sort of thing is addressed, I've introduced legislation. Senators Dorgan and Rockefeller, several others, including Senator Lugar from my own home state, are supporting me in this effort to do what we did with regard to Agent Orange. Byron, to basically shift the burden of proof, and say, if you served in conditions like this, you are entitled to the best care available. The burden should not be on you and your loved ones to come forward and prove that it was service related.

If you're exposed to something like sodium dichromate, the burden is on us to provide you the care that you are entitled to. So we have included this in legislation. I hope we can get this enacted here in the very near future, and I want to thank you and Senator Rockefeller for your support.

And Capt. Kimberling, I'm particularly interested in hearing from you, and want to thank you for your service to our country.

SEN. DORGAN: Senator Bayh, thank you, and thanks for your leadership. And similarly when we learned that WV soldiers were involved, Senator Rockefeller has been very active and very involved. And thanks for your leadership Senator Rockefeller.

SEN. ROCKEFELLER: Thank you, Senator Dorgan. It's not just that there was a West Virginia soldier involved, there were 150 West Virginia soldiers involved -- potentially. And what strikes me as I listen to both of you Senators, is that this takes us back, as you indicated to Agent Orange.

It's my recollection, I'm not sure that I'm right, but I have a very strong hunch that we actually as a Congress never did anything about Agent Orange until Admiral Zumwalt testified because his son had developed cancer from Agent Orange.

And he was so moving, and that was so powerful. And that was therefore so preemptive, that we did, well, you know, yay for us. But that's a pretty, pretty bad reason for coming to this conclusion about that particular disease.

Secondly, it reminds me of something that Gulf War veterans are still suffering from -- and this will be in my book of outrage for the rest of my life -- something called Gulf War Syndrome. You've all heard of it. And it was, because our soldiers were required to take Pyridostigmine Bromide, PB, a tablet every morning, and sometimes maybe every evening, but certainly every morning. The military meant to keep a record of that, of course they didn't, because they're out in the deserts with pencil and paper and they were busy. In any event, they didn't.

So then all across the country, and in West Virginia, thousands, thousands of people began to come down with symptoms, somewhat like are being described here. And maybe not leading to cancer, but leading to destroyed marriages, rashes, inability to sleep, inability to read a newspaper, inability to hold a job, inability to get along with their neighbors, simply sort of lying in their bed or their chair in a haze watching the world go by.

And when we went, I was Chairman of the Veteran's Committee at the time when we went really hard at the Department of the Defense and their answer was that it just hadn't been a problem. Pyridostigmine Bromide, PB, hadn't been a problem. And then it turns out that a study was completed that I think this year, 17 years later, a 450-page study saying that it was absolutely true.

It had been a problem. The military had ignored it. I remember, I think we even subpoenaed Schwarzkopf, General Schwarzkopf. We had to subpoena him because he kept a diary and we wanted to know if there was anything in that. And we learned a great deal. But what it says is that we owe you. And that we depend too much on people in the military who don't want to create problems for themselves.

If problems are created for you, somehow they can live with that. That's a little cruel to say, but I'll just say it for the sake of saying of it. And you suffer, and they, you know, continue to rise up in the ranks.

So I think Senator Bayh said we've got to put a stop to this. And there is always the thought -- you pass legislation, you'll put a stop to it. I'm not convinced that's true. I think it's a military cultural matter, not military in the soldier sense, but military in the sense that people who sit in laboratories or sit in positions at the DoD [Department of Defense] and don't take action.

It's absolutely disgraceful and I'm honored by the presence of the five of you, as well as the four of you, you Russell Powell, and 149 others. Thank you.

SEN. DORGAN: Senator Rockefeller, thank you very much. We've been joined by Senator Reid, the Majority Leader. Senator Reid, we have just been making some opening comments before we begin with the witnesses. Would you wish to make a comment?

SEN. REID: Thank you very much, Mr. Chairman, and especially the witnesses who are here today. Byron, your commitment to openness, transparency, and accountability, in the face of waste, fraud, and abuse is an example of government at its best. Supreme Court Justice Brandeis calls sunlight the best of disinfectants and that's what your Committee has provided.

Not only in the issue before us today, but for all of your work at the helm of the [Democratic] Policy Committee. Because of your work, your leadership, and of course your staff's hard work, this committee shined the light on a number of things, not the least of which is contractors who were rewarded for faulty work in Iraq, even though that work led to electrocution deaths of nine of our soldiers.

I appreciate the work that you did on contract abuses. I can remember so clearly the evidence you presented of the contractors playing football with wads of \$100 bills. They had so much money that they were actually playing football with stacks and stacks of \$100 dollar bills.

You explored how contractors' corruption undermines their military missions abroad. But sadly there hasn't been enough done on that. Today in the 20th hearing on abuses in Iraq, we'll get closer to the bottom of another terrible situation. As we will all hear our troops have been exposed to a potentially deadly substance, the very same chemical that contaminated the water in the California case that the movie *Erin Brockovich* made famous.

I've read some of the statements that will be made today. It's frightening what these men have had to put up with. So Chairman Dorgan, I appreciate very much this Committee's commitment to protecting those who protect us -- the brave men and women who voluntarily serve -- they deserve our great gratitude and respect, and you certainly deserve that.

And it's especially impressive how you have done so without the ability to subpoena. You've done it through hard work, a firm sense of justice, and a lot of sunlight. Thank you for conducting this hearing.

SEN. DORGAN: Senator Reid, thank you very much. And we've been joined by Senator Whitehouse, who has played a role in many of these hearings. Senator Whitehouse, I appreciate that. We are about ready to go to the witnesses. Would you like to make a statement?

SEN. WHITEHOUSE: I would never dream of standing between us and the witnesses.

SEN. DORGAN: All right. Thank you. Russell Powell is the first witness today. He is a former WV National Guard Staff Sgt. He served as a Staff Sgt. and Battalion Medic with the WV National Guard at Qarmat Ali from April to June 2003.

While at Qarmat Ali, Mr. Powell coughed up blood, had nosebleeds, became nauseous, and had burns on his face. He now suffers from chronic shortness of breath and periodic nosebleeds, skin rashes and so on. He is a resident of Moundsville, WV and was willing to come and testify. Sgt. Powell, thank you for being with us. You may proceed.

MR. POWELL: Thanks Senator.

Mr. Chairman, I would like to thank you for inviting me to testify here today.

My name is Russell Powell and I do live in Moundsville, WV. I started my military career in the 82nd Airborne Division in January 1994 as a Medic. In April 2001, I joined the 1092nd WV Army National Guard as a Medic and then we deployed to Iraq in March 2003.

While serving in Iraq, I was a Battalion Medic and Staff Sgt. I provided advanced medical care for the soldiers on the ground and looked after the welfare of the troops. From April 2003 to June 2003, I was assigned to Qarmat Ali water treatment plant in Basra, Iraq. In addition to the medical care I provided to my fellow soldiers, I also served on a team that provided security for KBR employees working at the plant.

When my unit arrived at the plant, it had been vandalized and nearly destroyed. The metal buildings were stripped of everything valuable and the roofs were missing. And there were these certain buildings that contained 100-pound bags, about 1,000 of them, of sodium dichromate, which we now know, had been stripped apart, ripped open, and the bags were all throughout the water treatment facility. They were ripped and exposed to the wind, this orange powder. The bags were often placed by doorways and buildings so we had to actually walk through the piles of the orange powder when we entered and exited the building. The soldiers at Qarmat Ali would even use the bags as protection. We used them as security measures, as sand bags. We'd eat there. We'd sit there and eat lunch.

There was a coating of orange-colored powder throughout the building. At times, it was thick, there were at least two inches of powder on my boots. Neither KBR or the Army voiced any concerns about what the powder might be. We always noticed a metallic taste in the air, especially after a dust storm. We talked about how disgusting the taste was and how it burned our throats.

While I was at Qarmat Ali, I began suffering from severe nosebleeds. My nose would bleed roughly around five to ten minutes at a time. I provided cotton balls to the troops and for myself. We had to shove them up our noses so they would stop the bleeding. Within three days of arriving at the plant in April 2003, I developed rashes on my knuckles, hands, and forearms. I never had any problems before working at Qarmat Ali and I was very healthy when I first arrived at the treatment plant.

During my work at Qarmat Ali, there were numerous wind storms. They were like little tornadoes and if you could describe it, it would be like the Great Depression. Whenever they had the dust bowl, that's basically how the dust storms were. Debris would pick up the orange powder and it'd flow all through the whole water treatment plant and around the water treatment plant. I'd see soldiers, you know, coughing up blood, me as well. They'd cover their mouths; cough up blood onto their shirts, so their shirts would get nice and bloody. And after the storm, we'd all look like orange powdered doughnuts. We'd dust each other off, dust all of the powder off of our clothes, and at no time were we offered any kind of protective clothing, masks, or respirators by KBR or the Army.

During and after these wind storms, I and many other soldiers and KBR workers had severe nosebleeds, coughed up blood, had difficulty breathing, nausea, and experienced a burning

sensation in our lungs and throats. After a few weeks at the facility, many of the soldiers around me began having skin lesions on their arms, hands, faces, and nostrils.

As a medic, I felt very concerned about the safety and health of the people I was serving at Qarmat Ali. I questioned one of the KBR workers about the powder and the related medical problems. He told me that his supervisors at KBR told him not to worry about the powder or health problems because we must be allergic to dust. I laughed at the explanation, it seemed pretty bogus. After 15 years of working as a medic, I knew there was no way that all of us could be allergic to dust at the same time.

Shortly thereafter, there was another severe dust storm. I was eating an MRE [meals ready to eat] and my throat and stomach began to burn like nothing I really ever felt before. I went to the infirmary the following day back in Kuwait and had a brief examination by one of the physicians and he said you probably just have the flu. But he really didn't explain to me why my face turned cherry red and why I was experiencing these symptoms with nausea.

Approximately 30 minutes later, my condition became much worse and I passed out. A couple of my fellow soldiers found me in a covered bunker and said that I was delirious and had coughed up a bunch of blood. I don't remember any of this until waking up the following day in the Kuwait Soldiers Army Hospital. My face and lips were burning, blistered and oozing pus, and it looked as though I was stuck with a hot iron. My throat was sore to the point I couldn't swallow anything. I was in the hospital for about one week getting antibiotics intravenously. The doctors had no explanation for why I was sick or why my face and lips were burnt so badly.

The day I was released from the hospital I returned to Qarmat Ali with my platoon. Upon my return, numerous soldiers came to me complaining of the same symptoms that I had, including stomach and gastrointestinal problems. I prescribed them antibiotics for those soldiers, but the symptoms persisted on. Everyone was sick at Qarmat Ali, including KBR and Iraqi workers themselves. I remember one particularly bad case: Sgt. Michael Helmick. He developed a perforation between his septum, which means a hole through [the nose] from one nostril to the other. I have never, in all my years with the military and serving abroad, seen this many soldiers experience symptoms with no explanation. I felt really frustrated that I could not help them.

During the time I was serving in Iraq, I was never informed that our West Virginia platoon, or unit, had been exposed to sodium dichromate while serving at Qarmat Ali. The Army never told us before the mission that there might be a risk of chemical exposure. As a medic, had I known the true nature of the risk, I would have made sure that everyone had personal protection equipment.

After leaving Iraq in April 2004, I went to the VA [Veterans Administration] Clinic in Clarksburg, WV to talk to doctors about my skin rashes, lesions, stomach problems, and nosebleeds. The doctors were unable to determine what caused my problems. Five years passed before I received a letter from the WV National Guard saying that we were exposed by sodium dichromate while serving at Qarmat Ali.

When I received the letter, I took it to the VA to show my doctor. He told me that he was not familiar with sodium dichromate and its health consequences. Since that time, my doctors have performed some research about the exposure to determine the effects on the human body. The VA doctors believe that exposure could be causing my health problems.

My symptoms haven't changed since my service in Iraq. I go almost weekly to doctor's appointments for my various medical conditions and I have to miss work and ask for additional sick time.

I am testifying today because it is disheartening to know that I may not be able to see my sons graduate from high school or college, get married, or hold my grandchildren because of this completely avoidable exposure.

I would like to thank all of you for your consideration of this tragic exposure at Qarmat Ali and the impact it has on me and many West Virginia veterans. I urge my fellow veterans to get registered, go to the VA to document their exposure, and demand appropriate and effective health care. Thank you.

SEN. DORGAN: Mr. Powell, thank you very much for being with us today and thanks for your testimony. Next we will hear from Rocky Bixby, a former OR National Guard Staff Sgt. He served as a Staff Sgt. in the OR National Guard and is a former U.S. Marine. He was exposed to sodium dichromate while serving at Qarmat Ali between April and June of 2003, experienced difficulty breathing, pressure in his chest, and many other health consequences. He is a resident of Hillsboro, OR. Mr. Bixby, thank you for coming all of this way to testify. You may proceed.

MR. BIXBY: Thank you Mr. Chairman, and I apologize, I have to cough every so often so it's hard for me to continue with a continuous conversation. Thank you for the opportunity to testify today to share with you my story and the others from the OR Army National Guard.

My name is Rocky Bixby. I live in Hillsboro, OR. I served as a Staff Sgt. in the OR Army National Guard commanding a squad of eight fellow soldiers. Before my service with the OR Guard, I served in the United States Marine Corps for four years.

My OR Army National Guard unit was deployed to Iraq in February 2003, and my squad was one of four squads that provided guard duty for KBR contractors in 2003. We rotated through the Qarmat Ali water treatment facility from April to June 2003. Our security work involved guarding KBR workers and following them in and out of buildings.

Each morning we received regular briefings from KBR about our security work. No one from KBR or the Army ever told us about hazardous materials at the Qarmat Ali facility. There were countless opportunities to communicate with us about environmental hazards.

The water treatment plant was in ruins when we arrived in April 2003. I had never seen a plant in such disarray. The buildings were stripped down, wires were pulled out, and equipment was missing. Enormous water pipes were lying all over the ground.

There was orange powder all over the plant -- it was caked thick and was crusted over the sand. Sand, dust, and the orange powder constantly got on our skin, in our eyes, and in our mouths and noses.

While I was working at Qarmat Ali, I developed a cough and shortness of breath. I was told by a medic that my respiratory problems were caused by the desert conditions; no one ever said anything about an exposure to sodium dichromate. I did not learn about our exposure to this horrible chemical until almost six years later when I received a letter from the OR National Guard in early 2009.

Unfortunately, I continue to experience health problems today. The persistent cough that developed continues to bother me, and I often feel like I need to cough. I am often out of breath and my breathing is labored. It feels like someone is standing on my chest.

Before my service in Iraq, I was physically fit. I used to run several miles without much effort. But now I have trouble walking from my house to my car and I simply just run out of breath.

I am aware of health problems that some of the other soldiers who served at Qarmat Ali are suffering. Sadly, we have already lost one OR Guard soldier to leukemia, who was only 21 years old. Others reported breathing problems, rashes, and problems with digestion and acid reflux. Larry Roberta, another soldier in the OR Guard, ingested some of the orange dust while eating after a wind storm. Some of the orange powder had fallen onto his chicken sandwich. In July 2003, shortly after his exposure, Larry went to the doctor because of sharp pains in his chest. Larry says that his breathing problems are so severe that he feels like he's drowning.

One thing that really bothers me is that this exposure was preventable. We could have used protective gear. When the war began, we were issued protective suits in case we encountered chemical weapons. If KBR had told us about the toxic nature of the chemical laying all over the plant at Qarmat Ali, we would have used this protective gear and we would not have been exposed.

The Army did not test OR Guard soldiers during or after the exposure. Even though some of the OR Guard soldiers were having health problems when we returned to the U.S., many of us did not take the time to write anything on our release papers because we did not want to prolong our service by triggering a medical hold.

After receiving the letter from the OR National Guard informing me that I had been exposed to sodium dichromate, I finally had a chest x-ray at the VA a few weeks ago. The doctors discovered that I had a node on my lung.

Chairman Dorgan, if it were not for your hearing last summer, I would never have learned that I was exposed to sodium dichromate, and I would not be receiving this follow-up care, so I want to say thank you very much, sir.

I came here today to share my story to protect my family and to do my part to take care of my squad and the other soldiers exposed to sodium dichromate at Qarmat Ali. I thank you all for

inviting me here to testify. I appreciate that you are trying to help us right this wrong. My hope is that your actions will help the soldiers who have been exposed and prevent future injuries. Thank you.

SEN. DORGAN: Mr. Bixby, thank you very much for your testimony. I call on Mr. Kimberling at this time, but as I introduce him, I want to make a point that we held a hearing last year of this committee because we met with some employees of Kellogg, Brown & Root who had served there and who came to us and said “we’ve heard of the hearings you are holding to try and make contractors accountable, and we worked for a contractor that put us at a site that was dangerous and we want you to know about it.” That’s the first I knew about it. And when we held that hearing, they described particularly the significant National Guard presence, but not just the National Guard, and I recall after that hearing calling Senator Bayh, because we both knew at that point there were a lot of IN soldiers there. And the General of the IN National Guard said “that’s the first I’ve heard of it.”

Now this is six years later after the exposure. And we wouldn’t know today about that exposure except for some courageous workers from KBR who came forward to say “you should understand what happened there and you should understand that there are soldiers at risk.”

And the reason that WV and OR and IN got letters notifying them from the Pentagon is because we held that hearing last year. Had we not done it, no one would know that this existed. One of the disappointing things is the Department of the Army still insists they did adequate testing. We’ll hear from Dr. Gibb about what adequate testing would have been and should have been. But this is a very, very serious issue and a whole lot of folks were put at risk. They need to know it, and they need the help of their government, not the resistance of their government.

Mr. Kimberling, you’ve travelled here from Indiana, you served as a Company Commander in the IN National Guard at the water treatment plant. You were medivaced from Iraq to Germany during the summer because you developed what is referred to as a chrome hole, or perforation in your nose, which is a tell tale sign of sodium dichromate exposure. You now suffer other health problems. You’re a native of Louisville, KY. We appreciate very much your being here to testify, Mr. Kimberling. You may proceed.

MR. KIMBERLING: Thank you, Mr. Chairman, honorable members of the Committee. My name is Russell Kimberling. I served as Capt. Company Commander of the Charlie Company 1-152 Infantry, 76th Separate Infantry Brigade. I was the OIC of Task Force RIO [Restore Iraqi Oil] on the security side of things. Qarmat Ali was part of that mission from April 2003 through August 2003. While in Iraq, I was the Company Commander for 120 to 160 soldiers. We protected KBR employees as they traveled to oil facilities throughout southern Iraq. This included the Qarmat Ali water treatment facility.

What stuck out at the facility, when I moved throughout the plant, was the presence of orange dust everywhere, spread all over the ground. It stained the concrete a bright orangish red shade. I later learned the orange dust was sodium dichromate. Even if you weren’t standing next to a pile of dust, it was almost impossible to avoid contact with the chemical. During frequent sand storms, the orange dust and sand would fly everywhere getting all over our clothes, faces,

exposed skin, and food. At no time during our deployment were we told to wear face masks or chemical gear. Within the first week of my assignment, I began experiencing symptoms.

The first symptoms were sinus-related, which included headaches and a bloody nose. Within the first two months of my assignment, the irritation had progressed to a nasal infection that caused a perforation in my nose. You could shine a light into my nasal cavity and it would show through a hole that had been eaten in my nose. My nose was bright red, painful to the touch, and [my face] had red spots on the outside my nose that would go down to my cheek. Actually, I still have them.

Because the infection was so severe, I was medivaced from Iraq to Lanstuhl Medical Center in Germany. The doctor lanced the wound, drained the pus, and put me on a course of antibiotics. Even when I returned to Iraq to Qarmat Ali in June 2003, KBR and the Army still didn't provide PPE [personal protective equipment]. About 60 to 70 other soldiers of Charlie Company also had symptoms consistent with exposure -- nosebleeds, body rashes, persistent coughing -- within approximately a week or two of working at the site. Anyone who has served in the infantry realizes that an infantryman does not complain to the chain of command about bloody noses or coughs. You assume that if you are really in danger, you will be told.

I did not observe PPE on-site until my commander, Lt. Col. James Gentry, said I needed to escort him and a group of civilians to Qarmat Ali in 2003. These individuals wanted to view the orangish dust that had been at the site. I noticed that the civilians were wearing full white PPE. They did not inform us that for safety purposes that we should be doing the same since our arrival at the site four months earlier, but they did see fit to protect themselves.

Later that same month, August 2003, we were finally told that the reddish-orange dust was sodium dichromate. We were told by KBR that the sodium dichromate was a mild irritant and that one would have to literally bathe in it for any toxicity to occur. The military began testing Charlie Company in October 2003. By the time we were tested in October though, KBR had already cleaned up the facility. Testing was not mandatory and we never received our written results.

When I returned to the U.S. in February 2004, the symptoms I experienced in theater continued. These included but were not limited to: severe sinus problems, excruciating sinus headaches, and frequent tearing from the eyes. I experienced, and continue to experience, aches and pains in my joints; I have tested low for testosterone, and experience a constant overall malaise. Prior to deployment, I did not experience any of the symptoms exhibited during my assignment at Qarmat Ali.

This exposure has affected my ability to obtain life insurance. Insurance companies deem me a high risk now. I am also concerned that I may develop cancer as I have a much greater chance of developing the disease than those not exposed. If I do develop cancer, I'm concerned about the financial situation of my loved ones who will be left behind.

I implore Congress to investigate KBR and this issue and hold them accountable. Also, to provide the men of Charlie Company and others exposed with continual healthcare and screenings. The VA should contact leading experts in sodium dichromate to make sure that they

understand the health consequences of the exposure. And also provide an opportunity for the soldiers that have been exposed to acquire life insurance to assure the protection of their families. Senators, I'm a man of humble origins. I am one of four children and a preacher's son. I chose the military as a way to serve my country and further my education. General Douglas MacArthur famously said, "Old soldiers never die, they just fade away." My men and I are growing old well before our time. Do not let sodium dichromate become the Agent Orange of the Iraq War. Take care of the soldiers that the government placed in harm's way -- first in the theater of battle and a second time, in the theater of KBR profit and negligence. Thank for your patience and I stand ready to answer your questions.

SEN. DORGAN: Mr. Kimberling, thank you very much for being here and for your testimony. Next we will hear from Glen Bootay, former 3rd Army Combat Engineer, excuse me, Third Infantry Division Army Combat Engineer, who served in the Third Infantry Division at Qarmat Ali in April 2003. Since his exposure, he has suffered numerous health problems including swelling around his heart, chest pains, and collapsed lung. He is a resident of Pleasant Hills, PA. Mr. Bootay, thank you for being here and please proceed.

MR. BOOTAY: Mr. Chairman, I am honored to be testifying today in front of the Democratic Policy Committee today. My name is Glen Bootay, and I live in Pittsburgh, PA. I signed up to enlist in the Army on September 12, 2001, the day after 9/11. I felt compelled to join the military to defend my country. I was in perfect health when I deployed to Kuwait in November 2002 with the 3rd Infantry Division of the United States Army. As a Combat Engineer, in addition to combat operations, my duties included visiting various power and water plants to evaluate structural problems. I served at Qarmat Ali in early April 2003 after my unit secured the Baghdad Airport.

My mission, along with seven other members of my unit, was to perform an infrastructure assessment of the Qarmat Ali water treatment plant. As soon as we arrived, we saw orange powder on the ground throughout the plant. My engineering squad did not note the powder on our assessment of the plant because we didn't know what it was. I didn't know about my exposure to sodium dichromate until this July when a friend read about the exposure at Qarmat Ali in a newspaper article.

While in Iraq, I visited a lot of sites, but I remember the Qarmat Ali plant specifically because when my unit arrived, the site was in complete disarray. Our job was to assess what repairs should be made, but we ended up recommending that the Army build a new plant because it would have taken too much time and money to clean up the mess and fix the machinery. We spent approximately three days and two nights at the plant, sleeping outside on the ground.

I remember seeing the orange powder all around us at Qarmat Ali. Even my mother remembers that I called her and told her about the orange powder because I had never seen anything like it before. But I had no reason to think it was toxic and our orders were to perform an assessment of the infrastructure, not the health risks.

While at Qarmat Ali, I started to suffer from nasal congestion and headaches. I remember the air tasted like metal, like I had a mouth full of pennies. After I returned from Iraq, I was never

contacted by the Army about the potential exposure at Qarmat Ali. I was unaware that I had been exposed to a toxic chemical, but my health problems continued to get worse. I began vomiting up to 20 times a day and I couldn't keep any solid foods down. My headaches continued. The point of origin of my illness was while I was in Iraq.

I sought treatment several times at the VA in Georgia and complained of vomiting and severe headaches. The VA's response to me was to "just deal with it." I felt abandoned and did not know what to do, but I did know I was in real trouble. By this point, I had lost 25 pounds and I was furious at the VA's failure to take my illness seriously. I decided to see a doctor outside the VA system, so I visited the Mayo Clinic in Florida.

At the Mayo Clinic, doctors told me that if had I stayed at the VA for care, I likely would have died. My body was not getting enough nutrients and I was very weak. A feeding tube was inserted and numerous tests were performed.

I returned home to Pennsylvania to be near my family and was hospitalized multiple times. After extensive research and multiple tests, including spinal taps, doctors discovered and began treating an antibody that is attacking my autonomic and central nervous system. My doctors have always questioned whether I was exposed to something toxic in Iraq, but until now we haven't had the answer. I am alive today because the doctors at the University of Pittsburgh Medical Center and Mayo Clinic did not give up.

I have constant headaches, constant chest pain with skipped beats, shortness of breath due to the lower edge of my lungs being collapsed, extreme fatigue, periodic skin rashes, inability to sweat, periodic vomiting without nausea, loss of feeling on my left side and torso, high blood sugar, episodes of kidney stones, episodes of blacking out and short term memory loss. I have been on two forms of chemotherapy for over two years and take up to 35 medications a day. I have to walk with a cane or a walker and I am unable to work. All of this and I'm only 30 years-old.

The VA has refused to cover the costs of my health treatments at the Mayo Clinic and other non-VA hospitals. I have also been denied benefits. I am still waiting for a decision from an appeal hearing from December 2008. I am fighting for my life and desperately need these benefits. But even if I am awarded the benefits at this point, I wonder if I will live long enough to receive them.

I believe my battle with illness would have been very different if I had been told by the Army that I was exposed to sodium dichromate at Qarmat Ali. My doctor now believes my medical problems are a direct result of my exposure to sodium dichromate at Qarmat Ali.

I am testifying today because I believe every soldier exposed at Qarmat Ali, whether in the National Guard or on active duty, should be told about the health risks of sodium dichromate. There could be others out there struggling just like me to figure out the source of their symptoms but have no idea that they were exposed. The VA should pay serious attention to sodium dichromate exposure and give soldiers the care they deserve. The VA must be alert and responsive to soldiers with symptoms that may not be characteristic of a known disease.

Thank you very much.

SEN. DORGAN: Mr. Bootay, thank you very much for coming to testify today. Finally, we will hear from Dr. Herman Gibb, former Associate Director for Health at the National Center for Environmental Assessment at the U.S. Environmental Protection Agency. He worked at the EPA at Environmental Assessment for almost 30 years, and was the Senior Science Advisor and Associate Director for Health. He's the senior author of a definitive and award winning study on the health risks associated with the exposure to sodium dichromate. Dr. Gibb, thank you very much. You may proceed.

DR. GIBB: Good afternoon. I am Dr. Herman Gibb. Thank you for the opportunity to testify before you today. I am testifying today in my personal capacity and do not in any way represent the interests, beliefs, or opinions of my employer.

I have a Ph.D. in Epidemiology from the Johns Hopkins University and an M.P.H. in Environmental Health from the University of Pittsburgh. I spent 29 years at the U.S. Environmental Protection Agency. Most of my time at the EPA was spent at the National Center for Environmental Assessment where I served in the capacities of Assistant Center Director and Associate Director for Health. Based on my experience working at the EPA on risk assessments of hexavalent chromium and my study of chromate production workers, the symptoms reported by some of the soldiers who served at Qarmat Ali are consistent with significant exposure to sodium dichromate.

The EPA maintains an online database of risk assessments on over 500 substances, including an evaluation of the potential of these substances to cause cancer in humans. Hexavalent chromium is classified as a human carcinogen. Among those substances that the EPA has classified as carcinogenic to humans and has estimated a cancer inhalation unit risk, the highest risk that has been estimated is that for hexavalent chromium. In 2000, while at the EPA, I was the senior author of two publications on the health risks experienced by chromate production workers at a facility in Baltimore, MD. The first publication reported the results of a mortality study. The second examined the risk of clinical irritation experienced by the workers. The hexavalent chromium exposure at the facility was primarily from sodium dichromate. For my work on these studies, the EPA awarded me the Agency's Scientific and Technological Achievement Award.

I became interested in studying the group of workers in Baltimore because of the considerable amount of exposure data available for the facility. The group was relatively large -- 2,357 males. There were 122 deaths from lung cancer. Hexavalent chromium was found to be significantly associated with an increased risk of lung cancer, even after controlling for smoking. Half of those who developed lung cancer had worked at the facility for less than ten months.

In 2006, based in large measure on our study, the Occupational Safety and Health Administration (OSHA) set a Permissible Exposure Limit for hexavalent chromium of five micrograms per cubic meter as an eight-hour time-weighted average based on the carcinogenic dose response. The new OSHA Permissible Exposure Limit reduced the previous Permissible Exposure Limit by over ten-fold.

Clinically diagnosed symptoms of irritation were found to occur in our study within a relatively short time period after beginning employment. The median time to develop an irritated nasal septum was only 20 days. The median time means half of those that developed an irritated nasal septum did so in less than 20 days and half developed in more than 20 days. An ulcerated nasal septum 22 days, a bleeding nasal septum 92 days, a perforated nasal septum 182 days. We recorded ten different types of clinically diagnosed irritation. What was also remarkable was the high percentage of the group that was diagnosed with signs of irritation. For example, 68 percent of the group was diagnosed at one time or another with nasal irritation.

The signs of irritation that the soldiers and workers experienced at Qarmat Ali are consistent with what we reported in our study. The testimony by the soldiers in the hearing today and by the civilian workers in the previous hearing held on this subject suggest that they are or have been experiencing signs of hexavalent chromium exposure.

A report from the Army's Center for Health Promotion and Preventive Medicine (CHPPM) indicated that blood samples were collected from 137 potentially exposed soldiers and DOD [Department of Defense] civilians. CHPPM's description of these results is confusing and lacks sufficient detail. CHPPM suggests that the chromium in the red blood cells of the vast majority of the individuals in their study is within normal ranges. However, CHPPM notes, in italicized print, that there are some other literature references that use lower limits. Unfortunately, CHPPM does not specify the literature sources nor do they indicate how low these lower limits are. Where did CHPPM get their reference values? How good are these reference values?

Although CHPPM reports that nearly all of the test results were below the limit of detection, CHPPM also reports that 98 percent of the samples showed chromium levels within the range of four to five micrograms per liter. How is it possible that 98 percent of the samples could be within the range of four to five micrograms per liter when they report that nearly all of the results were below the limit of detection?

In a 1987 article cited by the National Institute for Occupational Safety and Health (NIOSH), Dr. Angerer and others estimated that exposures ten times the current OSHA limit will result in a red blood cell level of 0.6 micrograms per liter. Assuming Angerer and his co-authors are correct and accounting for at least a 40-day delay in CHPPM's collection of blood samples, the air concentration to which the Qarmat Ali soldiers were exposed could be estimated to be approximately 80 to 200 times the current OSHA limit. Why did CHPPM fail to explore inconsistencies in their data with that of other literature?

These limitations call for greater scrutiny of the CHPPM results and certainly call for greater scrutiny of their conclusions.

The samples drawn from some of the soldiers and workers at Qarmat Ali were taken a month after remediation measures were taken to limit the exposure. In its draft Toxicological Profile on Chromium, the Agency for Toxic Substances and Disease Registry reports that the half-life of chromium in red blood cells is 30 days. In other words, 30 days after the exposure has ended, we would expect to see only 50 percent of the chromium in the volume of red blood cells that would have been there initially. Furthermore, the measurement of chromium in red blood cells is an

insensitive method of detecting hexavalent chromium exposure. The measurement of chromium in the red blood cell only captures the hexavalent chromium that makes its way into the cell. Sodium dichromate is a hexavalent chromium compound. It does not measure how much hexavalent chromium may have been inhaled and remained in the nose or lung, or was reduced in the body to trivalent chromium, which does not get into the red blood cell.

It should be noted that NIOSH, in its draft update on hexavalent chromium, states that biomarkers, which would include blood tests, are of uncertain value as early indicators of potential hexavalent chromium-related health effects. Nevertheless, CHPPM still put a great deal of emphasis on the red blood cell analyses from samples taken at least four weeks after possible exposure to hexavalent chromium. And some of these samples -- one of the individuals that testified indicated his sample was drawn two months after the exposure ceased. An analogy is like giving a breathalyzer test to a person three days after they were pulled over for erratic driving. The toxin would have been eliminated from the body in the intervening period.

Given the limited usefulness of these red blood cell tests, they should not be used as a bottom line indicator of the hexavalent chromium exposure that the soldiers and workers experienced. And they should not be extrapolated to other individuals who were exposed at Qarmat Ali. Nasal perforations, bloody noses, and skin irritation would be far more telling about the soldiers' and workers' exposure than measures of chromium in red blood cells taken a month after remediation has taken place.

In summary, the symptoms that have been reported by the soldiers in this hearing and by the civilian workers in the previous hearing on Qarmat Ali are consistent with what has been experienced by other workers exposed to hexavalent chromium. Judgment on whether these soldiers and civilian employees were exposed should not be based on measurements of chromium in red blood cells taken 30 days after remediation measures were taken, nor should such results be extrapolated to other individuals who were present at the facility.

I thank you for the opportunity to provide testimony.

SEN. DORGAN: Dr. Gibb, thank you very much. And I think the September report by the Department of the Army U.S. Army Center for Health Promotion and Preventative Medicine, in which you have referred to, raises the question "are we looking for something that doesn't exist here?"

In September of last year, following the hearing of this committee in which whistleblowers from KBR disclosed this problem, the U.S. Army Center for Health Promotion released this material that you referred to. They said "of the exposed soldiers, the results could have shown some abnormalities in individuals such as complaining of eye, nose, throat, lung irritation, that but these could not be specifically traced to chromium exposure but possibly numerous causes such as high dust levels in the theater, dehydration, dietary supplements, previous medical conditions, or heavy workouts." Then they further go on to say, "the medical team," this is the U.S. Army, "felt at the time long term health effects were very unlikely from the exposure as understood and this information has been conveyed to the soldiers." Continuing to quote, "[i]t is unlikely that

any current symptoms or health problems could be related to this past exposure or that future problems from this exposure are expected.”

This is what soldiers have heard from the Department of the Army. Dr. Gibb, does this seem like a reasonable position based on what you know of exposure at this point?

DR. GIBB: No, I think it's reasonable to conclude that the symptoms that they experience are a result of hexavalent chromium, sodium dichromate. And I say that because sodium dichromate is a very irritating substance, extremely irritating. In the study we did the median length of time that anybody worked at the facility was only three months. It was so irritating that our records show people quit on the first day. I think the reasonable conclusion here is that those symptoms were caused by sodium dichromate.

SEN. DORGAN: And what do you think could explain, I'm asking you for an opinion that you might be reluctant to express, but what could explain the Department of the Army taking the position “we've tested ‘x’ number of people, we've found nothing in the blood?”

You indicate an analogy, it's like giving a breathalyzer to a person three days after they were pulled over for erratic driving, the toxin would have been eliminated from the body in the intervening period. You make that point as well as that testing that was done would not likely have shown exposure. So what do you think results from the Department of the Army saying, you know, that there's no problem here? Is this an area that is so little understood, that is the impact of sodium dichromate on oneself?

Or, to what do you attribute a report like this following our last hearing -- a September '08 report by the U.S. Army that seems so at odds with what you and what a previous witness -- who was also one of the physicians who is an expert in this area -- so much at odds with what you and he both described to us?

DR. GIBB: My interpretation is that the Army recognized that it was an issue. Sodium dichromate, hexavalent chromium, has been recognized as a human carcinogen for maybe 40 years. I mean it's classified as a human carcinogen by the International Agency for Researching Cancer, the Environmental Protection Agency, and the National Toxicological Program. I think that they recognized there was an issue. If they came in 30 maybe 40, 50 days they would have experienced that the exposure did something. But I think it was a very weak response to something that they knew was an issue. I would say it was a very weak response.

SEN. DORGAN: In your testimony you indicate that through extrapolation you feel the soldiers were probably exposed to 80 to 200 times the current OSHA limit. Then you indicate that the EPA maintains an online database of risk assessments on over 500 substances, and the evaluation of these substances' potential to cause cancer in humans. This is classified as a human carcinogen and among the substances classified as carcinogenic to humans, this has the highest risk. Is that correct?

DR. GIBB: It is. Yes. In other words, it is the most potent when inhaled of the substances that the Agency has evaluated. The point about 80 to 100 times -- that's assuming that the CHPPM

indicates that 98 percent were between four or five micrograms per liter. If we assume that, let's say it's five micrograms, and going back to this previous Angerer study, then the conclusion would be that it could be 80 to 200 times. But I mean there are just inconsistencies in the CHPPM report that you would have to scratch your head at and say for one thing, I don't know where they got their reference values that they're comparing. They're saying these are normal reference values. We don't know what those reference values are and we sort of get this disclaimer saying there are other reference values that are lower but they don't tell you what those lower reference values are. I don't understand the CHPPM release or information.

SEN. DORGAN: Mr. Kimberling, you said that you were turned down for life insurance. Did they tell you why you were denied?

MR. KIMBERLING: I just got a letter after I found this out five years later. I let my extra life insurance from deployment kind of lapse and I thought "uh oh I better go back in." And they didn't tell me it was directly related to my exposure, they just said due to my [medical condition] -- I had to sign a waiver for my VA file, which I think it has my shoulder, hearing, and my back problem. I mean I wouldn't be denied life insurance for that. They said I was high risk. They didn't give me a reason.

SEN. DORGAN: Mr. Bixby, were you ever tested to determine whether you were exposed to sodium dichromate?

MR. BIXBY: Unfortunately, the doctors I've talked to said they can't connect it to sodium dichromate. I was given an x-ray. I was never given a pulmonary test. I was given a blood test but obviously it was way too late after.

SEN. DORGAN: All right. Mr. Powell, were you tested?

MR. POWELL: I was never tested. None of my other soldiers were tested either.

SEN. DORGAN: And Mr. Powell, was the first you learned of this issue -- the potential danger in the circumstances in which you were working -- was the first you learned of that last year?

MR. POWELL: We learned of it February 2009 this year, that was when we were first notified.

SEN. DORGAN: Senator Bayh.

SEN. BAYH: Captain Kimberling, you testified that you escorted a group, was it KBR employees, with the white suits on, the environmental suits on to the site? Did I understand your testimony correctly?

MR. KIMBERLING: Civilian attired. I couldn't say who they were, Corps of Engineers or KBR.

SEN. BAYH: But they had...

MR. KIMBERLING: Civilian attire on.

SEN. BAYH: Civilian attire on. I thought you said they had environmental suits on.

MR. KIMBERLING: When you got in the vehicle they had civilian attire. When they got out of the vehicle at the site, they had on their white PPE, the gear.

SEN. BAYH: Why do you suppose they put that on when they got out of the vehicle?

MR. KIMBERLING: They knew something we didn't.

SEN. BAYH: Well that's my point. [Laughter] So they drove up in civilian attire, but before they got out to set foot on the ground, they put on the environmental suits, obviously indicating they were worried about something.

MR. KIMBERLING: Yes.

SEN. BAYH: But you and your men hadn't been informed of anything by that point. Correct?

MR. KIMBERLING: Correct.

SEN. BAYH: At what point after that, if at all, were you informed?

MR. KIMBERLING: It was within a couple of weeks that Col. Gentry, once we figured out what it was, we were informed and we didn't go back to the site.

SEN. BAYH: So there were at least a couple weeks there when, I mean presumably they didn't find out that day, so there was a period of some time, at least a couple of weeks or some time longer, that people were aware that there was some pretty hazardous stuff there. So much that they wanted to protect themselves, but you and your men hadn't been notified.

MR. KIMBERLING: Yes, sir.

SEN. WHITEHOUSE: Thank you. I waived my opening statement because I wanted to get to the witnesses, so I'll just use a moment of my question time to express my appreciation to Chairman Dorgan and to the staff of the Democratic Policy Committee for the work they put into 20 hearings, looking into toxin exposure, electrocutions, fraud, waste, and water problems. It's been, I think, a very important series of hearings, and Senator Dorgan has been instrumental, as some of the witnesses have recognized, in getting us to this point, so I don't want to let this moment get by without expressing some of my appreciation.

As Senator Bayh was, I am interested in civilians who came there and as you said, Mr. Kimberling knew something you didn't know and therefore put on their white hazardous exposure suits. Did anybody else have the experience of seeing civilians or any other people come there with any sort of protective gear on that would have signaled some knowledge?

What is the timing of your different services there? Would you have been in a later period of service?

MR. KIMBERLING: Yes, we ranged from April through August and...

MR. POWELL: We overlapped each other

MR. KIMBERLING: Yeah we overlapped. I was there pretty much April through August though.

SEN. WHITEHOUSE: And this would have been towards the end that the civilians came?

MR. KIMBERLING: Yes sir.

SEN. WHITEHOUSE: And you had no idea who they were and to this day, don't know who they were?

MR. KIMBERLING: I'm not sure.

SEN. WHITEHOUSE: I suppose that's the sort of thing we can find out. There must be some records.

MR. KIMBERLING: That was above my pay grade. I got them [the civilians] there and dealt with my men, and Col. Gentry conversed with those people [the civilians].

SEN. WHITEHOUSE: And I understand from your testimony that he is ill and under hospice care right now?

MR. KIMBERLING: He is in hospice care right now.

SEN. WHITEHOUSE: I'm sorry. Sgt. Powell, when you first referred to the symptoms you talked about -- skin lesions and rashes -- could you be a little more descriptive about what you meant and why that might be something out of the ordinary, considering the rather hostile environment of sun and dirt and dust?

MR. POWELL: Well, when we first got there we'd be using these torn open bags of sodium dichromate -- using them for fighting positions, hiding behind dust storms. We'd actually put our hands in it, move it and within about three to four days we all developed the skin rash, which would basically be sores on your hands, forearms, knuckles, chest, your torso, your face, and they really weren't -- I can't say that they hurt that bad, but just being exposed, burned, like if you breathed it in, you'd burn your throat, burn your lungs, nausea, and bloody noses. Dry air and dust wouldn't regularly just burn your lungs and give you skin lesions.

SEN. WHITEHOUSE: I'd assume that those were conditions that were fairly prevalent throughout the Iraqi theater and you'd all have various symptoms [related] to a lot of sun and a lot of dust and exposure.

MR. POWELL: The way I see it is when we left Qarmat Ali, you know, [we had] the skin rashes, we moved up to Nasiriyah, skin rashes, nose bleeds, perspiration, you know, pretty much subsided.

SEN. WHITEHOUSE: It was still dusty up there?

MR. POWELL: Yeah, still really dusty up there.

SEN. WHITEHOUSE: Yes. Thank you very much.

Dr. Gibb, you indicated that you used the analogy of an alcohol test, a breathalyzer test and you said that the toxins after a while would be out of the system and therefore they wouldn't show up in tests and testing after a certain period of time is a waste of time, or worse, perhaps, very misleading. And I'm wondering if you can comment a little bit on how if the toxins are out of the system, for this particular chemical, the types of symptoms that each of the gentlemen have testified to, could nevertheless be continuing? What sort of damage, in the period of intoxication if you will, with this sort of chemical, what sorts of damage is it doing to the body with these lingering symptoms to continue so long after the exposure?

DR. GIBB: They may not all be out of the system, but they may not be all measured in the red blood cells. I mean, if the hexavalent chromium has been inhaled, all that could remain is in the lung or in the tissue; you're not going to measure it in the red blood cell. Someone had answered in Senator Dorgan's question earlier what did the Army do? If they had come in and measured, they couldn't measure chromium in plasma because at that time, 30 days out, it would have been all gone. So they made due with red blood cells. And as indicated earlier, red blood cells are very insensitive. There will be some chromium that remains in the system, but you're not going to measure it in the blood anymore.

SEN. WHITEHOUSE: And even if it were out of the system to some degree, it would nevertheless have done damage to the body that would cause continuing symptoms?

DR. GIBB: I think, that's sort of a difficult question, but I think that's possible given the highly irritative nature of hexavalent chromium.

SEN. WHITEHOUSE: And carcinogenic to boot?

DR. GIBB: It's carcinogenic, absolutely.

SEN. WHITEHOUSE: Yes. I just want to close by expressing my appreciation to the four of you for your service and for your coming forward today. I know that people who come from a military background are not complainers, and you've testified here with a great deal of dignity and with a great deal of cool and reserve about the situation that you are in. After your service you are entitled to come home to parades, to welcoming families, to a successful return, to successful lives in the private sector, and not to doctors visits, unanswered questions and months of symptoms and treatments that you don't understand and haven't been fully informed of, so I

think the way you've conducted yourselves in this hearing is very admirable and I just want to express my appreciation to all of you.

SEN. DORGAN: Senator Whitehouse, thank you very much. And, again thanks for your continuing work on these issues. Senator Udall.

SEN. UDALL: Senator Dorgan, thank you very much for your involvement with this issue, you have shown extraordinary leadership on this and I just want to let all of you know that he has really looked out for our soldiers regardless of what the political consequences are, so I just want to thank him for bringing our attention to it.

Let me also thank all the military National Guard for your service. We very, very much appreciate it and to me, as I hear this unfold and hear the testimony, I feel that this is an appalling situation that you were put in and really my first question to you and you've hit on this some in your testimonies, when did you first start realizing that the orange dust that was "everyplace" as you described it, and was being stirred up by sandstorms was causing the symptoms that you were experiencing there at the water treatment facility?

Sergeant, go ahead. I'll just start and move down this way. When did you first start? I'm wondering, when did you first start noticing and what did you do about it? Who did you report it to?

MR. POWELL: Within about three days of being there we noticed the powder and didn't think anything of it. I started getting bloody noses and some of my soldiers started getting bloody noses. We might have thought "ok this is dry air," but when all the members, KBR members, Iraqi workers and all the soldiers that were there working started getting bloody noses, rashes, that's when we knew something was really wrong.

SEN. UDALL: Within about three days?

MR. POWELL: Within about three days to a week. And of course, we're all concerned because we don't know, and supervisors from KBR are saying "it's just dust you guys aren't used to it."

SEN. UDALL: And that information was passed up the chain, to KBR?

MR. POWELL: Correct

SEN. UDALL: And Rocky, Sgt., is this the same for you?

MR BIXBY: Correct, Sir. Multiple soldiers reported it to medics and I'm assuming medics were told that it was due to the dust in the area and so we were told it was from dust -- the nosebleeds and stuff were from dust.

SEN. UDALL: And you also notified your superiors to your position after you?

MR. BIXBY: The soldiers that had the nose bleeds, yes.

SEN. UDALL: Yes.

SEN. DORGAN: Senator, would you yield on that?

SEN. UDALL: Of course, Senator Dorgan.

SEN. DORGAN: I want to make the point that the first hearing we held was because some former KBR employees came forward, one of whom was named Ed Blacke. Ed Blacke was a former KBR employee who was at the site in charge of worker safety, and he told us that when he began to raise questions about the danger of sodium dichromate at the site -- he did that with his employer -- the reaction was that he was escorted out of the country of Iraq. They would tolerate none of that -- he lost his job as a result.

SEN. UDALL: Absolutely appalling. And, Commander, did you have the same experience in terms of...

MR. KIMBERLING: Generally the same experience. With who I reported to, I kind of had two fathers at the time. I had KBR and the Corps of Engineers that I was tasked under, and then I had Colonel Gentry, our battalion commander, so everything, all the intel and information I got, I got from KBR. I had a counterpart on the security side of things so if there were any issues that were brought up, I would remind my side, I would bring it up to him. The only information we ever got was that it was a mild irritant. You know, don't worry about it. That's what I told my guys, "don't worry about it," they said "it was a mild irritant, so let's keep going."

SEN. UDALL: Thank You

MR. BOOTAY: Symptom wise, it was about the same time, but we didn't report anything up because we were there primarily to just report on the infrastructure of the facility and also the safety, the surroundings and not the health risks.

SEN. UDALL: Thank you. Dr. Gibb, in listening to this testimony and hearing the length of exposure and hearing the symptoms, if you were called in after you heard something like this, what kind of regiment, what kind of study would you use to determine what had happened to them knowing that they were exposed to hexavalent chromium?

I'm obviously comparing this to what CHPPM did when they came in. They obviously knew all of the facts regarding the toxicity and the carcinogenic nature of hexavalent chromium and designed a study that, in your testimony, wasn't really searching for the truth in this situation it seems to me.

DR. GIBB: I think what they did seems to minimize the exposure that they had. They did it after remediation had taken place. So therefore, you just think it'd be able to recapture exposure. I think if you would have known beforehand, first, I think that if you knew that sodium dichromate was there, you should have limited it immediately -- immediately should have had taken some remediation measure to eliminate exposure immediately. I think it's later on when

there were some complaints that then they remediated, then they took blood samples -- it was like the wrong sequence. They should have immediately taken air measurements, I think and some blood samples and immediately removed people from the situation, from the exposure. That would have been the prudent thing to do.

SEN. UDALL: From everything you can tell that isn't what was done here?

DR. GIBB: No, it sounds like from the testimony of the soldiers that the situation sort of dragged on for some time before people recognized that there was an issue and then someone said, "sodium dichromate is very toxic" and then it was like closing the barn door after the horse got out. So we're kind of working in retrospect and that's not what they should have done. They should have recognized that this is a very carcinogenic, a very toxic compound, and immediately reduced exposure from the word go.

SEN. UDALL: Dr. Gibb, knowing what you have said about this substance and that hexavalent chromium is regulated by OSHA, and has standards set, and for 40 years this has been known as a human carcinogen, do the facts of this, when they are all produced, are there warnings on [the chemicals] that indicate they shouldn't be in the air? Those kinds of things?

DR. GIBB: My understanding, I just heard today that the chromium came from China, so whether they had statements on it or not, I don't know.

SEN. UDALL: Yes, but are you familiar with what's done here in the United States if you have the substance and are selling it?

DR. GIBB: There should have been a Material Safety Data Sheet and it would be posted and workers would understand there was a workplace hazard and that sort of thing. My understanding is that people had no clue what sodium dichromate meant and that they didn't know anything about it and there was no information provided to them.

SEN. UDALL: Thank you Dr. Gibb, and thank you Senator Dorgan, thanks again for doing this.

SEN. DORGAN: Senator Udall, thank you very much, and Senator Wyden thanks for joining us.

SEN. WYDEN: Thank you Mr. Chairman and let me just make sure everybody knows about your tenacity in pursuing these contracting abuses. I think so often somebody holds a hearing or two or maybe puts out a press release, something like that. I think this is now your 20th discussion, 20th forum to look at these issues and I just want you to know how much I particularly appreciate your tenacity because unless you drill down into these issues, no real reform takes place. So we very much appreciate the way you're going about it.

And I want to thank Rocky Bixby in particular for coming. I think he knows our office has watched this issue unfold for some time. One of our aides had a brother, Nick Thomas, who served in the Guard, went to Iraq, pulled guard duty at Qarmat Ali, and died of leukemia at age 21. And Mr. Bixby, what I want to establish in this hearing and perhaps it gets a little bit into a

different area that has been discussed, is that the chemical that was dumped out by enemy soldiers was done in order to poison the American soldiers that were sure to follow.

Now, this has come to light in some of the earlier Senate testimony, that deadly chemical was spread all over the area and the Iraqi Army sabotaged the facility before they were forced to leave, but what can you tell us about this question of the chemical being dumped out deliberately by enemy soldiers in order to poison our people, our soldiers that were coming not long after?

MR. BIXBY: I can say that it looked like it had been dumped out all over the facility. There was no reason why it needed to be scattered out like it was. They had bags that were stacked up and they could have just left the stuff there, but you know it was scattered all over the facility over a 25 to 50 yard area, so somebody had to go out of their way to do it.

SEN. WYDEN: That's my sense. You don't get powder released all over the place in the way that was described in the Senate testimony, and the way that you've described, unless somebody is deliberately doing it. I wonder if one of your colleagues wants to touch on this. I saw people nodding their heads as well. Do any of you want to get into this issue as well?

MR. POWELL: I'll tell you like this. I'm sure some of the Iraqi's had some of their faults, like putting it in certain places where we'll enter or exit the water treatment facility, but when we got there we knew they sabotaged the water treatment facility, the water treatment plant, and just basically left the whole place in disarray.

When we got there, like I was trying to tell everybody, we didn't only see it lying on the ground. We used those open bags as firing positions. We put our guns on top of them, and used them like sand bags and used them basically like furniture. We ate there, really. But, Iraqi's, I'm sure they had their motive and we're pretty much finding out now.

SEN. WYDEN: I also think that it's important to get to the bottom of this because according to the Army regulations, the Purple Heart is given for injuries by enemy weapons biological, chemical, or nuclear, you know, "agents." Certainly our troops who have faced these extraordinary situations -- they go into combat, they shouldn't have to battle their government to stay protected from toxic chemicals on the front lines and they ought to make sure that those of us in Congress are working for appropriate recognition of their extraordinary sacrifices.

I think this has been a very helpful hearing in terms of all of you outlining the threat to service members that are exposed to chemicals. Suffice to say, this has been a problem that has gone on for a long, long time. This has not been the first instance of this. All you know about Agent Orange in Vietnam, Gulf War Syndrome. Certainly two examples that people are familiar with, but I'm going to get to the bottom of this issue with respect to how these chemicals were dumped out because I'm convinced enemy soldiers did it in order to poison our people who were sure to follow. What all of you today have said highlights that.

We'll all make sure that steps are taken now when there is some reform in the air to curtail these contracting abuses, protect our soldiers from these types of horrendous health threats, and make sure that they know their country is behind them. Thank you all, particularly Mr. Bixby, it's a

long trip out from Oregon, and you wanted to make a stand for folks in the service and we really appreciate that. Thank you Mr. Chairman.

SEN. DORGAN: Senator Wyden, thank you very much. I want to read into the record, part of the statement by Ed Blacke who is a former KBR employee, because I think in the context of what you just described it's really important to understand what we have previously learned and compare the previous hearing testimony from today.

Ed Blacke said, and now I'm quoting directly, "My name is Ed Blacke, I hold a university degree, and am a member of the American Society of Safety Engineers, also an emergency medical technician and have additional training in hazardous material identification and spill mitigation." He was hired and recruited by KBR for the position of Health, Safety and Environmental Coordinator in Iraq. This is a substantial person hired by the company to be in charge of health, safety, and environmental coordination in Iraq. He said he was assigned as HSE coordinator to the Qarmat Ali water treatment plant near Basra, Iraq. He said, "I made an assessment immediately during the first course of my assessment. I noticed a reddish-orangish material spread on the ground and spilling from damaged bags in the injection building." He said that he talked to certain people. He said, "I asked my Iraqi interpreter, Kennick Dini Du Quot if he was aware of what the material in the bags was used for and was advised it was injected into the water supply system for the oil fields as an anti-corrosive."

"He was reluctant to say more, but when pressed he said he knew it was poisonous and that he was aware of many workers from the plant who were made ill by it. He said that it being a poisonous chemical was probably the reason members of the Baath party had opened the storage bags and spread their contents all over the plant as a part of their sabotage efforts at the facility."

I won't read a lot more but he said, "On my return to quarters that evening, I researched sodium dichromate on the Internet, found and downloaded the material safety data sheet on the chemical." And he then attached the chemical to his testimony. He then said that he reported his finding about the imminent danger sodium dichromate was posing to the workers. Now this is a man concerned obviously with the Kellogg Brown & Root workers, the HSE and Project Manager in Kuwait, and he insisted they take immediate action. He said, "a few days later, two representatives of the Health Safety and Environmental at KBR in Kuwait came to assess the situation and talk to the workers. Those individuals were Safety Manager Johnny Mornay, Medical Supervisor Ray Garcia."

"They held a meeting with the workers during which they told the workers that sodium dichromate was a mild irritant at worst and the plant had been thoroughly checked out, was safe, and they were to go back to work. I was at the meeting and was shocked that fellow medical and safety professionals were telling such outrageous and blatant lies to workers. I pointed out in the meeting that the documents I had on this material contained in the sodium dichromate to which we were exposed directly contradicted their statements to the workers. At this point, Mr. Garcia, who was one of my supervisors, directed me to be quiet and to leave. He then escorted me out of the building. Outside he advised me I was being insubordinate, disruptive, and that my input was not appreciated."

Then in the next two paragraphs he describes being sent out of Iraq. That testimony is very important in the context of the time when soldiers from the units that are represented here today were serving. Mr. Blacke, the safety supervisor for the company on site, was telling the company officials that this is very dangerous, and the company official's response was to tell him he's being insubordinate and disruptive and to get him out of the country.

I think that says a lot about the way this was handled, and I'm also concerned about the way it was handled not just by the company, but also by the Department of the Army. I wish I could say that Department of Army has done everything, leaving no stone unturned for the search for the truth for what might or might not have happened to expose troops to a deadly carcinogen. Sadly, I don't feel that's the case. I don't feel they've been aggressive. In fact, I think some of the material that has been used advises troops that this is not much of a problem when in fact the experts that we have consulted suggest quite the opposite.

The point that a number of you have made is a very important point, and that is that what you should expect is adequate testing. And Dr. Gibb understands, and has said that there probably isn't testing right at the moment with respect to your blood cells that will describe exposure. But you should have access to all of the capabilities that exist at the VA and other facilities across the country if the VA does not have adequate capability to address the health issues that are being experienced by those being exposed on these sites. Mr. Bootay, you describe sleeping on the ground in open air?

MR. BOOTAY: Yes sir. We slept just on top of our sleeping bags right on the ground.

SEN. DORGAN: One other of the witnesses described a fellow soldier eating a sandwich with red powder on it following a windstorm. It is not surprising to me that all of that kind of activity would take place in an area where there is substantial wind, where you have a chemical, a granular chemical, that is widely spilling out of 100-pound bags. Does anybody have an estimate of how many 100-pound bags existed on that site?

MR. POWELL: When I got there my guesstimation probably would be about 1,000, 100-pound bags. Not just in the mixing room, but all over the water treatment plant itself.

SEN. DORGAN: How many of them were broken?

MR. POWELL: I would say 300 to 400, 500 maybe.

SEN. DORGAN: And the first that I had heard, I mean we knew there were soldiers on the site according to the Kellogg Brown & Root testimony -- there were soldiers on the site that were providing protection for the workers.

MR. POWELL: Correct.

SEN. DORGAN: And the Kellogg Brown & Root workers who came to testify said that they rode back and forth from this site. At that point they talked about IN National Guard soldiers who were suffering substantial bleeding noses and other difficulties and that's the first we really

knew of those kinds of symptoms. Those symptoms were fairly extensive, Mr. Powell, from your observation?

MR. POWELL: Yes sir, oh yes sir. I mean, the symptoms were almost immediate when we got there, so it was really confusing with me being the medic. Since we didn't have a physician with us, I was the medic, battalion medic, and doctor so... it was really frustrating for me. The reason they treated me as that, was I used to be a flight medic in the military also, I had a lot more training than most others.

SEN. DORGAN: Did any of you know Ed Blacke? Did your paths cross Ed Blacke who was the safety supervisor on site?

MR. BIXBY: I had met him before.

SEN. DORGAN: Are you aware of what he testified to? Were you aware at one point that he became, it sounds to me, that very soon after he arrived all of this transpired?

MR. BIXBY: I do remember he wasn't around long enough.

SEN. DORGAN: Well that's what he testified to, he wasn't around long enough. Was there any description on the bags? And if so, in what language was it written?

MR. POWELL: From what I understand it still had sodium dichromate [on it] and it had it in either [English or] Chinese but the bags themselves said sodium dichromate. And they were white.

SEN. DORGAN: Dr. Gibb, we asked you to come to this table because you know a lot about this carcinogen. You say it ranks right there at the top of all these substances. What do you think, knowing what you now know, knowing what the Department of the Army has provided as information to the troops, what do you think the next step should be for the Department of the Army? What would you recommend to them?

DR. GIBB: I think the first thing I would like to do as an epidemiologist; I would like to see their records, the medical records. The soldiers, from my understanding, haven't been provided their medical records. So if they were treated we don't have...currently these are self reported. We don't have the military records of the individuals. I think we should have those and evaluate those, and make some comparisons from that.

Since they are out of the system, I think that medical care should be provided by the VA because I think these are definitely service-related problems. We know that hexavalent chromium is a carcinogen. We know it's very irritating. There have been some symptoms like Mr. Bootay's that have not been, maybe, researched as well and that may be reason to do further possible epidemiological study though we don't have that many people involved maybe 300-500, I'm not sure. One would have to sit down and look and see how you would design the study, how would you diagnose the cases and so forth, there would have to be some thought put into it.

But certainly, number one, I would want to see the Army's medical records, which nobody seems to have been able to obtain. Number two, I think they certainly deserve VA medical care, and three, I guess examine the feasibility of an epidemiologic study.

SEN. DORGAN: We are going to ask for an Inspector General's report. The Inspector General of the Department of Defense will be requested by myself and my colleagues to do an investigation -- evaluate the medical records, do an evaluation of what has happened, what do we know, what don't we know, what do we need to know in order to be fair and fully address the health issues of the troops that have been exposed.

As I said earlier, the fact is that I would like to say I'm enormously proud of the way the Army responded to this, or I'm proud of the way a contractor responded, but I'm afraid that's not the case. There are a lot of questions, and I guess one of the questions of you, Dr. Gibb, what further do you think should be communicated to the troops who were exposed at this point?

DR. GIBB: I would say there is evidence of significant exposure because of the symptoms people have experienced. The kind of symptoms, perforated septum, that sort of thing indicates significant exposure. Number two, I would communicate that sodium dichromate is a recognized human carcinogen and they should be aware of that.

SEN. DORGAN: So you would recommend that the September '08 communication that has gone to the soldiers be modified with more complete and correct information by those who have expertise in this issue of exposure to sodium dichromate, is that a fair statement?

DR. GIBB: I think it should be more than modified, I think it should start again, but I think that's an appropriate communication.

SEN. DORGAN: All right. I was told that there were some other members of the audience who are members of the National Guard who might be with us. If you are here would you like to stand and identify yourself? Is there anyone here? All right.

Let me ask if there is any additional material that you wish to submit, or information from the four of you? You've come, in most cases a long way, except for Mr. Powell, you're just a neighbor over here in West Virginia, but I appreciate very much your willingness to come and take your time and do the things you feel you should do to expose the concerns about the health of other soldiers as well. Mr. Powell, would you like to have any concluding remarks?

MR. POWELL: The only thing I would really like to shed light on, with these exposures, with about 149 of my other fellow West Virginians, that the VA actually take notice that this chemical exposure would be a service connect to get disability for them, which hasn't been brought to light yet. That'd be the only thing I really have, Senator.

SEN. DORGAN: Mr. Bixby?

MR. BIXBY: Senator, it takes four to six months apparently for the VA disability to happen; way too slow for us who need it. Also, the soldiers that have died maybe get a purple heart for

them. I think they deserved it in honor of their country. And then, for KBR to be held accountable for what they've done to the soldiers.

SEN. DORGAN: Mr. Kimberling?

MR. KIMBERLING: I have a couple of points: first would be the VA. My assessment has been complete and what I've gotten back from the VA, with my sinus issues, was that they are admitting that it's military related, service related, but nothing saying that it has to do with sodium dichromate. That could be due to their lack of education in the area, but that was one thing I wanted to mention.

Also, I had a call from a Colonel in the Army -- I think in about mid-June -- and I think that he was told to call me and ask me a few questions about my experience. Unfortunately, it was more like a check in the box type thing for him. He called me up and asked me -- he already knew my symptoms and my experience. And he just let me know that -- I think that he was reading off the same sheet we all have -- that I wasn't exposed much, I should be all right, should live a normal life type thing. It didn't give me a warm fuzzy about the talk with him or the Army's future stance on it that they were really going to look into it and do the right thing.

MR. BOOTAY: I'd say that the Army should notify all soldiers that have been exposed. I just found out about my exposure a couple weeks ago in a newspaper article and also ask the VA rule on hearings for disability in a timely manner.

SEN. DORGAN: All right. Dr. Gibb, thank you for being with us and we may call on you for additional information. This is an area that is not widely understood, the exposure issues, there's a lot that we don't know. But there is enough to know, to believe that something has happened here that should be of great concern to us, to the Department of the Army, to Kellogg Brown & Root, and their employees. And, I have written following the previous hearing to the Secretary of the Army and asked for a full evaluation, we have not yet gotten that.

I am going to now, as well, ask for an investigation from the Inspector General of the Department of the Army, because I think it's important. I want to say thanks for taking the time to be here. I think you feel as I do that we support our military, we feel indebted to our soldiers. I don't like criticizing the Department of the Army and its response, and at the same time, I think to stand up for the interest of the soldiers if criticism is necessary, then we have to ask hard questions.

The same is true with respect to contractors. Again, thank you for taking the time to be with us today. This is the next step in what I assume will be a continuing evaluation on what has happened, what is our response to deal with it, and how can we continue to monitor the health of those soldiers who were exposed and what can the VA do to extend themselves to make themselves available to make health care possible to those vets who were exposed.

This hearing is adjourned.