

NORTH CAROLINA  
COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE  
SUPERIOR COURT DIVISION  
13-CVS-11032

STATE OF NORTH CAROLINA *ex rel.* )  
NORTH CAROLINA DEPARTMENT OF )  
ENVIRONMENT AND NATURAL RESOURCES, )  
 )  
Plaintiff, )

V. )

SIERRA CLUB, WATERKEEPER ALLIANCE, )  
NEUSE RIVERKEEPER FOUNDATION, )  
WINYAH RIVERS FOUNDATION, ROANOKE )  
RIVER BASIN ASSOCIATION, and CAPE )  
FEAR RIVER WATCH, INC., )  
 )  
Plaintiff-Intervenors, )

DEPOSITION OF  
RANDALL WATTS  
WILLIAMS, M.D.

v. )

DUKE ENERGY CAROLINAS, LLC, )  
 )  
Defendant. )

and

NORTH CAROLINA  
COUNTY OF MECKLENBURG

IN THE GENERAL COURT OF JUSTICE  
SUPERIOR COURT DIVISION  
13-CVS-14661

STATE OF NORTH CAROLINA *ex rel.* )  
NORTH CAROLINA DEPARTMENT OF )  
ENVIRONMENT AND NATURAL RESOURCES, )  
 )  
Plaintiff, )

V. )

CATAWBA RIVERKEEPERS FOUNDATION, )  
INC., APPALACHIAN VOICES, YADKIN )  
RIVERKEEPER, MOUNTAINTRUE, DAN )  
RIVER BASIN ASSOCIATION, ROANOKE )  
RIVER BASIN ASSOCIATION, SOUTHERN )  
ALLIANCE FOR CLEAN ENERGY, and )

13-CVS-14661

WATERKEEPER ALLIANCE, )  
 )  
 Plaintiff-Intervenors, )  
 )  
 v. )  
 )  
 DUKE ENERGY CAROLINAS, LLC, )  
 )  
 Defendant. )

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WEDNESDAY, MAY 18, 2016

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ROOM 301  
NORTH CAROLINA DEPARTMENT OF JUSTICE  
114 WEST EDENTON STREET  
RALEIGH, NORTH CAROLINA  
7:58 A.M.

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VOLUME 1  
PAGES 1 THROUGH 280

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T A B L E O F C O N T E N T S

<u>WITNESS</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>
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S T I P U L A T I O N S

PRIOR TO EXAMINATION OF THE WITNESS, COUNSEL FOR THE PARTIES STIPULATED AND AGREED AS FOLLOWS:

1. OBJECTIONS TO QUESTIONS AND MOTIONS TO STRIKE ANSWERS NEED NOT BE MADE DURING THE TAKING OF THIS DEPOSITION, BUT MAY BE MADE FOR THE FIRST TIME DURING THE PROGRESS OF THE TRIAL OF THIS CASE OR ANY PRE-TRIAL HEARING HELD BEFORE THE JUDGE FOR THE PURPOSE OF RULING THEREON OR AT ANY OTHER HEARING OF SAID CASE AT WHICH SAID DEPOSITION MIGHT BE USED, EXCEPT AN OBJECTION AS TO THE FORM OF A QUESTION MUST BE MADE AT THE TIME SUCH QUESTION IS ASKED OR OBJECTION IS WAIVED AS TO THE FORM OF THE QUESTION;
2. THAT THE WITNESS DOES NOT WAIVE READING AND SIGNING OF THE TRANSCRIPT.

P R O C E E D I N G S

7:58 A.M.

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(WHEREUPON,

RANDALL WATTS WILLIAMS, M.D.

WAS CALLED AS A WITNESS, DULY SWORN, AND TESTIFIED AS  
FOLLOWS:)

MR. HOLLEMAN: And I think Mr. Rosser has  
something that he wants to say.

MR. ROSSER: Yes. As we understand it,  
Dr. Williams has to leave today at 1:30?

THE WITNESS: Yes.

MR. ROSSER: In light of that, I was  
suggesting to Frank before the deposition started that we  
attempt to split the time so that Duke had an equal  
opportunity to ask Dr. Williams questions, particularly  
in light of our expectation that the  
Plaintiff-Intervenors will release this transcript to the  
public. We think it makes sense for Duke to have an  
equal opportunity to ask questions.

Frank indicated that he would "See how it  
goes," I believe was his words, and that in the last  
deposition that he took he noted that he took less time  
than I did in questioning Dr. Davies. So I just want to  
note that for the record and indicate that we would like  
an equal opportunity to ask Dr. Williams questions today,  
rather than at a later date.



1 MR. HOLLEMAN: So noted. And I said, let's  
2 see how it goes. Are we ready?

3 D I R E C T E X A M I N A T I O N 7:59 A.M.

4 BY MR. HOLLEMAN:

5 Q. Dr. Williams, have you given a deposition  
6 before?

7 A. I have, Frank. I tried to count them for you.  
8 I think 20, and I think I have -- let's say in about 12  
9 trials. And that is significant because, as we talk  
10 about the issue in front of us, certainly the skill sets  
11 I developed in doing that kind of critical analysis of  
12 issues and trying to look at situations as an expert  
13 witness -- these were in medical malpractice mostly --  
14 certainly helped me as I was trying to assess these  
15 issues. And I use that daily in my job as State Health  
16 Director and Deputy Secretary for Health Services.

17 Also in the space, legally, I am on the Chief  
18 Justice's Commission on professionalism, one of three  
19 laypeople on that, and so certainly have a great respect  
20 for the rule of law. Have traveled to other states with  
21 the Chief Justice talking about that, based on my  
22 experiences overseas. So I consider all of the lawyers  
23 in this room Officers of the Court and, again, believe  
24 that no man is above the law and that it should be  
25 transparent.

1                   And also in that space, the reason I got  
2 interested in all of that was I was on a jury for a rape  
3 and kidnaping trial when I was in high school. And that  
4 certainly formed my opinion on this. So very much,  
5 again, believe in the Rule of Law and happy to answer any  
6 questions today that you have.

7                   Q.    Okay.    Now, when you gave those number of  
8 depositions, were those all in your capacity as an expert  
9 witness?

10                  A.    Frank, all the -- one was as a witness. Back  
11 in residency, there was a case that I wasn't named in but  
12 I was involved with. And one has been, I think, in  
13 disability, which I was called in. And one was my most  
14 -- the last day of private practice I gave one, not as an  
15 expert witness, but just a fact witness. But the other  
16 17 or so were as an expert witness.

17                  Q.    All right. You know this, but let me just say  
18 it for the record. I will be asking you a series of  
19 question. If for any reason you don't understand me or  
20 can't hear me, or otherwise need the question clarified,  
21 please let me know and I will be glad to do that. And as  
22 you know, you are under oath today as though we were in a  
23 courtroom or before a judge, even though we are in a  
24 conference room here in a state government building.

25                  A.    Yes, sir.

1 Q. Now, Dr. Williams, where did you go to  
2 college?

3 A. I did my undergrad, medical school and  
4 residency training at Chapel Hill.

5 Q. And what was your undergraduate major?

6 A. I was History/Zoology double major, and  
7 graduated with honors in History.

8 Q. And then when you graduated from medical  
9 school, did you graduate in any specialty or just a  
10 general ---

11 A. (Interposing) General.

12 Q. --- degree? And what was your residence in?

13 A. Obstetrics and Gynecology.

14 Q. And where did you do that?

15 A. At Chapel Hill.

16 Q. Do you have any other degrees or academic  
17 training, other than what you have just described?

18 A. No, sir.

19 Q. After you left UNC, where did you start work?

20 A. I moved to Raleigh in 1989 and joined a  
21 private practice, and had practiced there until last  
22 year. Mostly in private practice -- well, always in  
23 private practice, but for six of those years we were  
24 owned by Rex.

25 Q. And in private practice, what kind of medicine

1 did you practice?

2 A. I practiced obstetrics, delivered babies,  
3 primary care, GYN, surgery/office space GYN.

4 Q. What was the name of the practice?

5 A. I started with Ruark OB/GYN in 1989, and then  
6 got bought out by Rex in 1995. And then in 2001 left and  
7 joined Chris Heaton and Mary Susan Fulghum -- the three  
8 of us in a private practice doing GYN only.

9 Q. And in your private practice, how many  
10 employees did you all have?

11 A. At various times during those 26 years,  
12 anywhere from probably 15 to 30.

13 Q. And your last practice -- tell me again when  
14 you began with the last practice you practiced in.

15 A. That would have been 2001.

16 Q. And when did you leave there?

17 A. July, 2015.

18 Q. And when you left there in July of 2015, how  
19 many employees did you all have?

20 A. About fourteen, I think.

21 Q. Did you have an office manager or did the  
22 doctors manage the office?

23 A. An office manager.

24 Q. Did you have a title, or were you just -- tell  
25 me what your position was in the practice.

1           A.    At one time I was president, one time I was  
2 vice-president, one time I think I was secretary.

3           Q.    How many -- when you left, how many employees  
4 were you supervising?

5           A.    About, again, fourteen, I think.

6           Q.    So each of the doctors supervised all  
7 fourteen?

8           A.    Yes, sir.

9           Q.    Is that the way you considered it?

10          A.    Yes, sir.

11          Q.    Now, what is your current position?

12          A.    I am Deputy Secretary for Health Services for  
13 North Carolina, and State Health Director.

14          Q.    And what are your duties?

15          A.    As State Health Director, I am charged with  
16 policy making for the Division of Public Health. I also  
17 am the spokesman for the department. I have statutory  
18 responsibilities, and I work with the Deputy Secretaries  
19 and the Secretary.

20                I oversee the Division of Public Health,  
21 working with Danny Staley, who is the Director of Public  
22 Health. And we have approximately 1,700 employees,  
23 really, in 10 different sections. So both horizontally  
24 and vertically, I have responsibilities. As Deputy  
25 Secretary, I work with the other Deputy Secretaries. And

1 to support the department we have about 1,700 employees  
2 and a 20 billion dollar budget.

3 I also oversee in that role the Office of  
4 Rural Health. So in both of those roles, I have both  
5 vertical -- meaning responsibilities to those above me --  
6 those below me, and horizontally, to the other Deputy  
7 Secretaries.

8 Q. So there is more than one Deputy Secretary?

9 A. Yes, sir.

10 Q. How many are there?

11 A. There are four.

12 Q. There are four? And who do you report to?

13 A. I report to Rick -- Rick Brazier, the  
14 Secretary of DHHS.

15 Q. When did you assume that position?

16 A. July 1<sup>st</sup>.

17 Q. And what led you to come to DHHS?

18 A. That is a great -- on days like today, I  
19 wonder that. No. I had been in private practice, had  
20 3,000 patients, very much enjoyed what I did, Frank. But  
21 I feel, for a variety of reasons, that this is probably  
22 the most important time in North Carolina's health care  
23 history. Going back, the Division of Public Health  
24 started in 1877. I was on the North Carolina Commission  
25 of Public Health for eight years, was on the local Wake

1 County Board of Health when I first moved to Raleigh.

2 And if you look at North Carolina's health  
3 care history, starting in 1877, I am the fifteenth State  
4 Health Director. There have been some red letter dates,  
5 certainly in the '40s with the creation of the Good  
6 Health Movement, the creation of North Carolina Memorial  
7 Hospital, four year medical schools, dental school,  
8 nursing school, public health school at Carolina. Then  
9 you go to the '60's with Medicare and Medicaid ---

10 Q. (Interposing) Don't let me -- excuse me for  
11 interrupting you, but I am really asking you not for a  
12 history of the agency, but why ---

13 A. Right.

14 Q. --- how did you learn of the opening; what led  
15 you to apply for it?

16 A. All right, I am sorry. So, anyway, the idea  
17 of why I left -- I misunderstood. So that -- so, anyway,  
18 I thought that the -- I was approached, to answer your  
19 question, if I would interview for the job of State  
20 Health Director.

21 Q. And who approached you?

22 A. Robin Cummings.

23 Q. And who is Robin Cummings?

24 A. He was the person who was in my role -- he was  
25 Deputy Secretary before he left to go be the Chancellor

1 at Pembroke.

2 Q. And how did you know him?

3 A. I knew Robin -- I believe that he was on the  
4 transition committee, I think, with Governor McCrory  
5 after he was elected, I believe. But -- I don't have a  
6 direct recollection of that, but I had met him just  
7 through various interactions. During the two and a half  
8 years, I would be called time-from-time to ask my  
9 opinions on issues. And so I think I kind of knew him  
10 through that.

11 Q. Now were you on Governor's McCrory's  
12 transition committee?

13 A. Yes, sir. On health care.

14 Q. On health care? Did you support his election  
15 for Governor?

16 A. Yes, sir.

17 Q. And how did you support it?

18 A. I just went to a fund raiser, as I remember,  
19 and I think I gave \$250.

20 Q. And did you give any more than that or do  
21 anything else?

22 A. No, sir.

23 Q. Now, after your service on the transition  
24 committee, did you have any other role in the McCrory  
25 administration until Mr. Cummings called you -- is it Mr.



1 or Mrs.?

2 A. Doctor, it is Dr. Cummings.

3 Q. Is it a man or a woman?

4 A. It is a man, I am sorry.

5 Q. Before Dr. Cummings called you, had you had  
6 any other contact or involvement with the McCrory  
7 administration?

8 A. No, sir. No, sir.

9 Q. And I believe you said -- well, let me go to  
10 this. So after Dr. Cummings called you, what did you do  
11 next to pursue the position?

12 A. I interviewed with Secretary Wos and Mark  
13 Gogal and Mark Payne, I believe -- members of DHHS.

14 Q. And Secretary?

15 A. Wos.

16 Q. Would you spell that for the court reporter,  
17 please?

18 A. Yes, W-O-S.

19 Q. And at that time, she was the preceding  
20 Secretary to the current one?

21 A. Yes, sir.

22 Q. And about when did you interview with her?

23 A. It would have been about April of last year.

24 Q. And who else did you talk with before you  
25 assumed the position?

1           A.   Well, I think, you know, I had -- I think Mark  
2   Gogal, who was head of personnel; Mark Payne who was her  
3   Chief of Staff; Sherry Bradsher, who was Secretary --  
4   Deputy Secretary for Social Services; Dave Richard was  
5   Secretary -- Deputy Secretary for Medicaid, or became  
6   that.  And I may have met with Dale Armstrong, but I  
7   don't remember.  He is now Deputy Secretary for Mental  
8   Health.

9           Q.   Did you speak with Governor McCrory before you  
10  were appointed?

11          A.   No.

12          Q.   Did you speak with anyone on his staff before  
13  you were appointed?

14          A.   No, sir.  I don't believe so.

15          Q.   When you were interviewing for the position,  
16  did the issue of the "do not drink" letters at the coal  
17  ash sites around North Carolina -- did it come up?

18          A.   No, sir.

19          Q.   The position you hold, is it a civil service  
20  position or is it a political appointment?

21          A.   It is policy exempt.

22          Q.   So that means it is a -- you serve at the  
23  pleasure of the Secretary, I suppose; is that right?

24          A.   Well, I -- what I tell people is I work for  
25  the people of North Carolina, because they pay my

1 paycheck. I mean that is what I ---

2 Q. (Interposing) But that is not who you directly  
3 report to.

4 A. Right.

5 Q. My question is, in terms of the government  
6 employment structure, I assume what that means is that  
7 you serve at the pleasure of the Secretary?

8 A. Yes, sir.

9 Q. When did you first hear of the issue of the  
10 "do not drink" letters around the coal ash sites?

11 A. Frank, I think it was around right -- it was  
12 either late June or early July, as part of my briefing  
13 for taking over the role as Deputy Secretary. I met with  
14 Secretary Wos, and we had about an hour meeting, just  
15 about the responsibility -- we had already interviewed,  
16 but she kind of went into everything.

17 And I very distinctly remember at the end of  
18 that meeting she said, "Do you understand, Randall, what  
19 your role is in this Department?" And I said, "Yes,  
20 ma'am. I think." She said "Well, I can sum it up in one  
21 word. And that is 'lead.'" And I will never forget  
22 that, she said "You lead."

23 So after I started the job, there were several  
24 things that, in addition to my responsibilities for  
25 overseeing the Division of Public Health and Rural

1 Health, that she used the word "portfolio" -- that "these  
2 are in your portfolio." And one of those was well water.  
3 And so that is the first time I heard about well water.  
4 To your specific question, the "do not drink," I don't  
5 know. But that is the first time I really was briefed on  
6 well water.

7 Q. So let me ask again: when you were briefed  
8 about well water, did you learn about the "do not drink"  
9 letters?

10 A. I don't believe so, or I just don't remember.

11 Q. When did you first hear about them or learn  
12 about them?

13 A. I don't remember.

14 Q. Did you know they had been issued before you  
15 became the Deputy Secretary?

16 A. No, sir.

17 MR. ROSSER: Object to the form.

18 THE WITNESS: No, sir.

19 BY MR. HOLLEMAN:

20 Q. Well, let me state it differently to you. Had  
21 you heard about the "do not drink" letters before you  
22 became the Deputy Secretary?

23 A. I don't believe so.

24 Q. So if you don't remember when, do you remember  
25 the context in which you first heard of them?

1           A.    Well, I think the best way I can approach that  
2           is, is it was a very busy time in July when I first  
3           started. The legislature was in session with Medicaid.  
4           The first time I remember being briefed -- and I remember  
5           this very vividly -- by Megan and Mina was about the  
6           second week of August on well water by them. And I  
7           remember that very distinctly.

8           Q.    And when we say "Mina," we are referring to  
9           Dr. Shehee?

10          A.    Yes, sir.

11          Q.    And when we say "Megan," we are referring to  
12          Dr. Davies, is that correct?

13          A.    Yes, sir.

14          Q.    And what did they tell you in that briefing in  
15          August?

16          A.    I remember very distinctly they were trying to  
17          go into all the processes of how the levels for  
18          hexavalent chromium and vanadium had been established.  
19          And the reason that was, was they were getting ready to  
20          appear before someone in the legislature. So they came  
21          to me to kind of walk through their presentation, which I  
22          didn't go to. And they were more or less walking me  
23          through how that presentation would go.

24                        And I can't remember, but I made a suggestion  
25          and they adopted it, and I can remember Megan coming back

1 and saying "that really helped." But I don't remember  
2 what I did. And the reason that is important is, is that  
3 when Secretary Brazier came, which was right around the  
4 second week of August, one of his very first briefings  
5 was by Megan and Mina, probably a week later, on well  
6 water. I remember that distinctly.

7 Q. Do you remember what suggestion you made ---

8 A. (Interposing) I do not.

9 Q. --- regarding the presentation?

10 A. I do not.

11 Q. Well, after your briefing with Dr. -- I am  
12 sorry -- Secretary Brazier, what was your next  
13 involvement with the "do not drink" letters?

14 A. Yes. Again, I remember that briefing because,  
15 again, you have to understand that just a week before I  
16 had been briefed. And then Rick was being briefed for  
17 the first time. And I just remember he was very  
18 complimentary to Megan about the presentation, that it  
19 was, I thought, a very complex and difficult subject to  
20 understand, and that she had done a good job of trying to  
21 explain it.

22 The real -- next things that go through my  
23 mind are some follow-up meetings with Megan and Mina.  
24 And Danny Staley was at that meeting too, I am sorry, for  
25 the briefing with Rick. I don't think he was at the -- I

1 am pretty sure he was not at the meeting with Mina and  
2 Megan alone. And those meetings were around the fact  
3 that, again, it was felt to be just a very contentious  
4 issue. And so we would have a series of meetings to  
5 discuss that contention and the complexity of it.

6 Q. When you say "we," who is "we" would have a  
7 series of meetings?

8 A. Again, to my recollection, it would have been  
9 Danny and me, and Megan and Mina. And Rick was involved  
10 in one or two of those meetings.

11 Q. And when you say "Rick," is that Secretary  
12 Brazier?

13 A. Yes, sir.

14 Q. And when you say "It was a contentious issue,"  
15 what -- well, let me back up. Was anyone else involved?  
16 I asked you who Rick was, but were you going to add  
17 anyone else who attended those meetings?

18 A. No. You know, in the vast majority of my  
19 meetings, Danny will be there. Danny is Director of the  
20 Division, so usually, if I am at a meeting with anybody  
21 in his division, he will usually be there. But there was  
22 -- the more we delved into it, certainly within the  
23 legislature, there were requests to come over and talk  
24 with them. And those request were for Megan and for me  
25 and others around the issue of well water, so we would go

1 and talk with them. There were, I think, articles in  
2 the media.

3 Very shortly, I would be talking to private  
4 citizens who had concerns. So, as a rule, we would be  
5 responding to that as we listened to people.

6 Q. And I guess you remember in March of 2016,  
7 this so called "do drink" letter was issued. Do you  
8 remember that?

9 A. Oh, yes, yes. I am sorry. I was -- I am  
10 sorry.

11 Q. Before the "do drink" letter was issued, which  
12 members of the legislature did you meet with about the  
13 "do not drink" letters?

14 A. Yes. The majority of those meetings were with  
15 Jeff Warren, who was on the -- and when I say majority.  
16 I don't remember how many there were, there may have only  
17 been one or two or three -- who is on the Senate Pro Temp  
18 Staff, and Mitch Gillespie, who is with the Speaker's  
19 staff. I remember we met with Representative Bumgardner  
20 one time. We met with a representative from Charlotte  
21 one time who -- well water was in his district.

22 And at all of those meetings, I was  
23 accompanied by Adam Sholar. Megan was at one of those  
24 meetings with Mitch Gillespie, as I remember, I think --  
25 I think.



1 Q. Who is Adam Sholar?

2 A. He was our legislative assistant at the time;  
3 he is no longer there.

4 Q. And what did Mr. Warren tell you?

5 A. I think, if I could summarize Mr. Warren's and  
6 Mr. Gillespie's comments together, they really were on  
7 two tracks. One was that people were very alarmed by the  
8 "do not drink" letter. So I certainly was aware of them  
9 then. And that there was a concern that we had alarmed  
10 people disproportionate to the risk. And there was that  
11 concern.

12 And I think there was the other concern that  
13 there was an inconsistency of views or attitudes from DEQ  
14 and DHHS. I think that is fair.

15 Q. And did Mr. Warren and Mr. Gillespie express  
16 any other concerns?

17 A. No, those are the two -- if I could summarize  
18 them, that is how I would phrase it.

19 Q. I understand that is your summary. I am just  
20 asking were there any other concerns in substance  
21 different from that or separate from that summary?

22 A. I don't believe so, sir.

23 Q. What about Representative Bumgardner; what  
24 were his concerns?

25 A. He was more demonstrative. I think -- I think

1 I remember the term, you know, "These people think they  
2 are being poisoned," something to that effect.

3 Q. Do you remember any other concerns he  
4 expressed?

5 A. It was a short meeting.

6 Q. When you met with Mr. Warren and Mr.  
7 Gillespie, what was your response to them and their  
8 concern?

9 A. Yes, sir. I went back to the department. And  
10 the sense was -- and met with Rick and Megan and Mina and  
11 Danny. And the sense was that we needed to update the  
12 well owners. And so that culminated in a letter of  
13 October 15<sup>th</sup> that we wrote from DEQ and DHHS.

14 Q. I guess my question is, though, what did you  
15 say back to Mr. Warren and Mr. Gillespie in those  
16 meetings there after?

17 A. I think the general tenor of those remarks  
18 was was that under CAMA, that we had used -- we had been  
19 instructed to use the MCLs, and that hexavalent chromium  
20 did not have an MCL. Vanadium didn't have an MCL. And  
21 then if we didn't have that, we were going to use an  
22 IMAC, for which vanadium did have an IMAC but hexavalent  
23 chromium didn't. So then we fell back to the Cancer  
24 Slope curve, and that that is why we had generated the  
25 levels we had and issued the Health Risk Evaluations and

1 the "do not drink" letters.

2 Q. So let me get to this meeting or meetings  
3 again. Did you indicate to Mr. Warner or Mr. Gillespie  
4 that you all would take any action, or did you just  
5 explain what the Department had done?

6 MS. LeVEAUX: Objection.

7 THE WITNESS: Just explained. Just  
8 explained.

9 BY MR. HOLLEMAN:

10 Q. And what about to Representative Bumgardner?

11 A. Just explained.

12 Q. I believe you said you met a representative  
13 from Charlotte?

14 A. I did.

15 Q. And what was that content of that meeting?

16 A. That was more education. He just wanted to be  
17 brought up to speed on the issue. I don't think he had  
18 concerns. He just wanted to learn about the issue.

19 Q. Did Mr. Warren or Mr. Gillespie ask you to  
20 take any specific or general action?

21 A. Other than they thought we needed to let the  
22 -- we needed to get information out to the well owners.  
23 We needed to let them know that we were still engaged in  
24 this process.

25 Q. Did they suggest what the content or substance

1 of those communications should be?

2 A. I mean, I think there was a tenor that they  
3 thought that we weren't -- that the letters -- that our  
4 communication to them hadn't been clear, that we needed  
5 to be more clear about how we had established what we did  
6 and the evidence to support it.

7 Q. And did you agree that the Department had not  
8 been clear with the well owners?

9 A. Well, it seemed to me that to their point that  
10 there was a lot of confusion in this area, I would have  
11 agreed with that, yes.

12 Q. And what was the confusion?

13 A. Yeah, it is a good question which kind of gets  
14 to the heart, which is, is that as we set those -- issued  
15 the HREs and the "do not drinks," as you well know, we  
16 did that using established practice. But it was very  
17 much in an emerging science, that as we looked around the  
18 country and looked federally, we didn't have a lot of  
19 guidance. And because, in public health, that is not  
20 unusual for us, we kind of followed our standard  
21 practices.

22 But as we did that and you looked at what was  
23 going on both federally and nationally, there was an  
24 incredibly healthy debate about many of these issues.  
25 For instance: one, vanadium wasn't regulated by the

1 Federal Government and isn't basically regulated by other  
2 states; that we had set a level of 0.3 micrograms per  
3 liter, and that as we pointed out in the original letter  
4 the daily consumption is anywhere from 10 to 20  
5 micrograms per liter. And probably the average, you  
6 know, level in water is probably 1. So there was  
7 confusion about that.

8 For hexavalent chromium, there was a very  
9 healthy debate among DEQ and DHHS about total chromium  
10 versus hexavalent chromium, and that there were three  
11 numbers really -- maybe four -- in the public domain.  
12 One was our .07 that was calculated off a Cancer Slope  
13 curve. One was 100 for total chromium which, on the EPA  
14 web site, was said to be -- you could consider all of  
15 hexavalent chromium to be total chromium. And then in  
16 California they had a Health Protective Level of .02, but  
17 they had an MCL, basically, of 10. So because of all  
18 that different information, there was a lot of -- of  
19 communication among a lot of people about the  
20 appropriateness of our levels and issuing the "do not  
21 drinks."

22 Q. Now, in 2015, DEQ and HHS established a Health  
23 Screening Level for hexavalent chromium; is that correct?

24 A. Yes, sir.

25 Q. And that number was ---

1 A. .07.

2 Q. .07?

3 A. Micrograms per liter.

4 Q. Does that remain the Health Screening Level  
5 for hexavalent chromium for HHS?

6 A. Yes, sir, it does, as does vanadium's 0.3  
7 micrograms per liter, as we speak.

8 Q. Now, do you have any doubt about the accuracy  
9 of the calculations that led to the 0.07?

10 A. No, sir.

11 Q. And are you aware that -- or do you know who  
12 did the initial calculations of the .07 Health Screening  
13 Level in North Carolina Government?

14 A. To my knowledge, it was between DHHS and DEQ,  
15 as was the IMAC set for vanadium. Although when I ask  
16 people within our department, it always seems that DEQ  
17 was the driver for the IMAC for vanadium of 0.3.

18 Q. Do you know who in state government did the  
19 initial calculations for the 0.07 Health Screening Level  
20 for hexavalent chromium?

21 A. I think Ken Rudo was involved, but I can't  
22 tell you if he was the exact person or there were some  
23 people in DEQ that he worked with.

24 Q. Do you know whether DEQ did the initial  
25 calculations, or whether DHHS did the initial

1 calculations for the hexavalent chromium Health Screening  
2 Level?

3 A. My sense was it was collaborative, but I do  
4 not know the exact person.

5 Q. Do you know whether the Federal Centers for  
6 Disease Control reviewed the calculations?

7 A. They did.

8 Q. And what was their response?

9 A. That it had been done accurately.

10 Q. Now, before the "do drink" letter was issued,  
11 did you meet with anyone else in state government about  
12 the issue, other than these legislators and the people in  
13 your department?

14 A. Well, in state government?

15 Q. Yes.

16 A. That involves the legislature?

17 Q. Yes.

18 A. All right. Well ---

19 Q. Let's start first with the legislature.

20 A. Okay.

21 Q. Before the "do drink" letter was issued in  
22 2016, did you meet with anyone else in the legislature  
23 about this issue?

24 A. Yes. Yes, I can walk you through that.

25 Q. Sure.

1           A.    It will be a little bit of a soliloquy, but I  
2    know you want to get the truth, and I think that is  
3    probably the best way to do it.  So the meetings that we  
4    talked about resulted in the letter or October 15<sup>th</sup>.  And  
5    do you have that letter?

6           Q.    It would be good if you have it.  Let's make  
7    it and exhibit.

8           A.    Can we make it an exhibit, because in the  
9    other two depositions, I haven't seen anybody talk about  
10   that.

11           MR. BARKLEY:       We have got copies of that.

12           MR. HOLLEMAN:     Sure.

13                               (PLAINTIFF-INTERVENORS EXHIBIT 297  
14                               WAS MARKED FOR IDENTIFICATION.)

15           BY MR. HOLLEMAN:

16           Q.    Go ahead.

17           A.    So this was a ---

18           Q.    (Interposing) Well, just for the record, what  
19    is Exhibit 297?

20           A.    Frank, this is a letter from -- signed by  
21    Randall Williams, which is me, and Tom Reeder, DEQ  
22    Assistant Secretary for the Environment, to Well Owners,  
23    of October 15<sup>th</sup>, 2015.

24           Q.    And proceed ahead with what you were going to  
25    say, please.



1           A.    Thank you.  So this was a letter to address  
2           the concerns that there was a lot of confusion around the  
3           levels we had set, and why we had issued the "do not  
4           drinks."  And that, again, was from listening to a large  
5           variety of people, whether it be the media or legislators  
6           or private citizens.  We were getting e-mails.  And so  
7           that was the purpose.

8                     Now, this letter was written by both  
9           departments.  And it involved a lot of different people.  
10          It involved people within DPH, people within DEQ, people  
11          in communications, I suspect.  Our legal counsel looked  
12          at it.  The Secretary looked at it.  Secretary van der  
13          Vaart looked at it.  And our communications people looked  
14          at it.

15                    And so that letter was not changing any  
16          policy.  That was just to communicate the policy that we  
17          had.  So that was that.  I am sorry.

18                    So that was that.  And then that was in  
19          October.  And in that letter, if you will see -- if you  
20          will read the third paragraph, I think it is, or fourth  
21          paragraph, DEQ indicates that -- may I read it?  Would  
22          that be ---

23                    Q.    If you wish.

24                    A.    Okay.  Thank you very much.  It says, "Since  
25          sending the previous letter, North Carolina DEQ conducted

1 sampling and testing of private wells some distance from  
2 coal ash impoundments in an effort to establish natural  
3 background conditions. These samples indicate that the  
4 levels of vanadium and hexavalent chromium in your well  
5 water are generally in the range of the levels of those  
6 same constituents in some wells and some municipal  
7 drinking water supplies in other parts of the state."

8 Q. Well, let me ask you about that statement. Is  
9 that a true statement?

10 A. That -- we relied on that statement from DEQ.

11 Q. Well, to your knowledge, is that a true  
12 statement? Today -- sitting here today, based on the  
13 knowledge you have today, is that a true statement?

14 A. Yes. Well, let me -- well, I have to qualify  
15 that, because I don't have -- no, let me qualify that,  
16 because they conducted that sampling and testing. And I  
17 have not seen that data.

18 Q. Well, what about -- if I could see it?

19 A. Yes, sir.

20 (Document handed to counsel.)

21 Q. Just to ask you, what about the statement --  
22 this is addressed to "Dear Well Owner," correct?

23 A. Yes, sir. Uh-huh.

24 Q. So I guess it went to every person who had  
25 received the "do not drink" letter?

1 A. Yes, sir. That is correct.

2 Q. And do you all have a list of those people?

3 A. Yes, sir. We do.

4 Q. And this letter not only tells them that their  
5 wells have been tested, but that "the levels of  
6 hexavalent chromium in your well water are generally in  
7 the range of the levels of these same constituents in  
8 some municipal drinking water supplies in other parts of  
9 the state." Is that a true statement to your knowledge?

10 MR. ROSSER: Object to the form.

11 MS. LeVEAUX: Objection.

12 MR. ROBBINS: Objection.

13 THE WITNESS: Yes, sir. That is true.

14 BY MR. HOLLEMAN:

15 Q. Now are you aware that some people who  
16 received this letter had hexavalent chromium as high as  
17 20 or more in their wells?

18 MR. ROSSER: Object to the form.

19 MS. LeVEAUX: Objection.

20 THE WITNESS: Yes, sir.

21 BY MR. HOLLEMAN:

22 Q. Are you aware of any municipal water supply in  
23 the state of North Carolina that has a level of 20 or  
24 more in its drinking water supplies?

25 MS. LeVEAUX: Objection.

1 THE WITNESS: No, sir.

2 BY MR. HOLLEMAN:

3 Q. So would that statement be a true statement to  
4 well owner who has 20 or more ---

5 MS. LeVEAUX: Objection.

6 BY MR. HOLLEMAN:

7 Q. --- hexavalent chromium in their well?

8 MS. LeVEAUX: Objection.

9 MR. ROBINS: Objection.

10 MR. BARKLEY: Objection.

11 THE WITNESS: Well, again, the sentence  
12 says, "These samples indicate that the levels of vanadium  
13 and hexavalent chromium in your well water are generally  
14 in the range of the levels of these same constituents in  
15 some wells and some municipal drinking water supplies in  
16 other parts of the state." So I agree with that  
17 statement. It is the previous sentence that DEQ had done  
18 the sampling and testing of private wells. I have not  
19 seen that data.

20 BY MR. HOLLEMAN:

21 Q. All right. But I am asking you about the  
22 statement. Are you saying the word "generally" justifies  
23 telling a well owner with over 20 parts per billion  
24 hexavalent chromium in their wells that the levels of  
25 hexavalent chromium in your well is in the range of the

1 levels of these same constituents in some municipal  
2 drinking water supplies?

3 A. Yeah.

4 MS. LeVEAUX: Objection.

5 MR. ROSSER: Objection to form.

6 MR. ROBBINS: Objection.

7 MR. BARKLEY: Objection.

8 THE WITNESS: Frank, again, for that, we did  
9 240 wells for hexavalent chromium. 234 were under 10.  
10 Seven -- or 233. Seven were over 10. So three of those  
11 seven were in the 10 range. So that statement is true  
12 with the exception of the one well owner. And we have  
13 taken steps to handle that.

14 BY MR. HOLLEMAN:

15 Q. Which one well owner?

16 A. The one with the 22 -- or 21.

17 Q. You think there was only one?

18 A. Well, there was that one there that I know of.  
19 I don't know of a wide range of people in the 20's.

20 Q. Do you know if there was more than one that  
21 had ---

22 A. (Interposing) I - I -- yes, I think there was  
23 more than one, but I don't think it was in the wide range  
24 of the 234 that were under 10.

25 Q. Well, what about the others who were above 20?

1 Was it a true statement for them?

2 MR. ROSSER: Object to the form.

3 THE WITNESS: Again, it was a true statement  
4 in the general range. But we have addressed those people  
5 over 10 now to reflect that concern.

6 BY MR. HOLLEMAN:

7 Q. Do you know a municipal drinking water supply  
8 in the state that has a level of over 10?

9 A. No, sir.

10 Q. Do you know a municipal drinking water supply  
11 in the state that has a hexavalent chromium level over 5  
12 parts per billion?

13 A. No, sir.

14 Q. Do you know one that has a level of over 1  
15 part per billion of hexavalent chromium?

16 A. I believe there are some, yes.

17 Q. How many?

18 A. I do not know. I am thinking approximately  
19 maybe 50.

20 Q. Now when you sent this letter out, had you  
21 surveyed the other municipal drinking water supplies in  
22 other parts of the state?

23 A. We relied on DEQ to do that.

24 Q. So the answer is no, is that correct? You had  
25 not done that?

1 MS. LeVEAUX: Objection.

2 MR. ROBBINS: Objection.

3 MR. BARKLEY: Objection.

4 THE WITNESS: Me, personally?

5 BY MR. HOLLEMAN:

6 Q. Yes, you?

7 A. No, we relied on -- the letter came from both  
8 DEQ and DHHS.

9 Q. Right, but you did sign it as the Deputy  
10 Secretary for Health Services, correct?

11 A. Yes, sir. That is correct.

12 Q. And you, yourself, had not determined whether  
13 this sentence was true? And that is "These samples  
14 indicate that the levels of vanadium and hexavalent  
15 chromium in your well water are generally in the range of  
16 the levels of the same constituents in some wells and  
17 some municipal drinking water supplies in other parts of  
18 the state."

19 MS. LeVEAUX: Objection.

20 MR. ROBBINS: Objection.

21 THE WITNESS: Well, again, we relied on DEQ  
22 to provide that data. The letter came from both Tom and  
23 me, so that is not -- for municipal water, that is not  
24 our purview, so we had him provide that information.

25 BY MR. HOLLEMAN:

1 Q. Did he provide information to you? A list of  
2 municipal water supplies?

3 A. I can't recall.

4 Q. But you don't remember having actually looked  
5 at the levels of hexavalent chromium in drinking water  
6 supplies in other parts of the state, is that correct?

7 MR. ROSSER: Object to the form.

8 MS. LeVEAUX: Objection.

9 THE WITNESS: I had looked at other -- I had  
10 looked at Raleigh. I had looked at Charlotte, I believe.  
11 But I had again, relied on Tom with DEQ for that part of  
12 the letter.

13 BY MR. HOLLEMAN:

14 Q. When you looked at Raleigh's hexavalent  
15 chromium level, what was it?

16 A. Seventy-five percent of the time it was below  
17 our screening level. 25 percent of the time it was above  
18 our screening level.

19 Q. When it was above your screening level, how  
20 high did it ever go?

21 A. I think probably 0.1.

22 Q. So what about Charlotte? When you looked at  
23 it, what did it indicate?

24 A. Charlotte's level was higher for hexavalent  
25 chromium more often, and it was right at 0.1, too.



1 Q. But was it -- was Charlotte's -- your  
2 recollection is Charlotte's was above your screening  
3 level?

4 A. At times, yes, sir.

5 Q. By how much?

6 A. Provided by staff, I just remember that  
7 Charlotte was right at 0.1 part of the time. And that  
8 was provided to me by my staff.

9 Q. Can we mark this as an exhibit, please.

10 MS. BLAKE: What exhibit number?

11 THE REPORTER: 298.

12 MS. LeVEAUX: 298?

13 (PLAINTIFF-INTERVENORS EXHIBIT 298  
14 WAS MARKED FOR IDENTIFICATION.)

15 BY MR. HOLLEMAN:

16 Q. Let me show you Exhibit 298, which is the 2013  
17 annual drinking water quality report for the  
18 Charlotte/Mecklenburg Utility Department. And if you  
19 could look at page 8, which is the last page. And if you  
20 look at the bottom it says "Chromium-6 distribution."  
21 Do you see what the reported level was?

22 A. Yes, sir.

23 Q. And what is it?

24 A. .073.

25 Q. So that is right at your Health Screening

1 Level for Charlotte, is that correct?

2 MR. ROSSER: Object to the form.

3 THE WITNESS: I have seen a level provided  
4 to me by staff that was higher than that.

5 BY MR. HOLLEMAN:

6 Q. Did you see this 2013 report?

7 A. No, sir. Well, maybe they gave me another  
8 year. I am not sure.

9 Q. Let's go back for a minute. I believe you  
10 said you are not aware of any drinking water system in  
11 any municipality in North Carolina that has hexavalent  
12 chromium above 5 parts per billion, is that correct?

13 A. I am not aware. No, sir.

14 Q. How many of these well owners had hexavalent  
15 chromium of 5 parts per billion or higher?

16 A. I don't know the exact number. I have seen  
17 that number, but my cutoff was more looking at what was  
18 under 10.

19 Q. All right. What about five?

20 A. I don't know.

21 Q. Well, in light of the answers you have given  
22 me, do you still -- I am going to ask you again: the  
23 sentence that says "These samples indicate that the  
24 levels of vanadium and hexavalent chromium in your well  
25 are generally in the range of the levels of these same

1 constituents in some wells and some municipal drinking  
2 water supplies in other parts of the state." Do you  
3 still believe that is a true statement?

4 MR. ROSSER: Object to the form.

5 MR. BARKLEY: Objection.

6 MR. ROBBINS: Objection.

7 THE WITNESS: Yes, sir.

8 BY MR. HOLLEMAN:

9 Q. As it is addressed in every letter to ever  
10 well owner who received this letter?

11 A. No, sir.

12 Q. And so to how many well owners was that a  
13 false statement?

14 MR. ROSSER: Objection to the form.

15 MS. LeVEAUX: Objection.

16 MR. ROBBINS: Objection.

17 MR. BARKLEY: Objection.

18 THE WITNESS: Again, I think that in --  
19 seven well owners that were over -- at least seven that  
20 were over 10, we had taken steps, as this has evolved, to  
21 address that issue.

22 BY MR. HOLLEMAN:

23 Q. And when ---

24 A. And I will get to that.

25 Q. What about for the well owners who were 5 or

1 more, was that a true statement?

2 A. I believe so. Yes, sir.

3 Q. And what do you base that belief on?

4 A. Again, based on DEQ's report. Their reporting  
5 that out to us.

6 Q. As you sit here today, have you looked at the  
7 levels of hexavalent chromium in the municipal drinking  
8 water supplies in cities and towns in North Carolina?

9 A. Again, I believe I have seen that, but for  
10 that part of the letter we relied on DEQ.

11 Q. Right. But I am saying, today -- as we sit  
12 here today, have you as of today reviewed the hexavalent  
13 chromium levels in the municipal drinking water supplies  
14 in communities across North Carolina?

15 A. DEQ has, and I rely on their information.

16 Q. But does that mean you, yourself, have not  
17 done that?

18 MR. ROBBINS: Objection.

19 MR. BARKLEY: Objection.

20 THE WITNESS: I have seen some of the  
21 levels, but I have not done it extensively as DEQ has.

22 BY MR. HOLLEMAN:

23 Q. Well have you determined whether most of the  
24 drinking water supplies in municipalities across North  
25 Carolina have hexavalent chromium levels above 5 parts

1 per billion?

2 MR. ROBBINS: Objection.

3 THE WITNESS: No, sir.

4 BY MR. HOLLEMAN:

5 Q. Have you determined if most of them have  
6 levels above 1 part per billion?

7 A. Above 1?

8 Q. Yes.

9 A. Not me, individually, no. But, again, I would  
10 emphasize that it was a combined letter.

11 Q. Well, I understand you say that, Dr. Williams.  
12 But do you believe as the Deputy Secretary for Health  
13 Services for the State of North Carolina, you had a  
14 responsibility to make sure the letter was true before  
15 you sent it out?

16 MR. ROSSER: Objection.

17 MS. LeVEAUX: Objection.

18 MR. ROBBINS: Objection.

19 MR. BARKLEY: Objection.

20 THE WITNESS: I relied on those people who  
21 reported to me. And in that case, that is under DEQ's  
22 purview, not DHHS's.

23 BY MR. HOLLEMAN:

24 Q. Now, you said you relied on people who  
25 reported to you?

1           A.   Well, reported out to me.  They didn't -- they  
2 weren't directly reporting to me.

3           Q.   Did anyone who reported to you object to this  
4 statement in the October 2015 letter?

5           A.   I don't remember.

6           Q.   NOW, I believe you said you did know when you  
7 sent this letter out that you believe Charlotte's level  
8 of hexavalent chromium was .1?

9           A.   Yes, sir.

10          Q.   And you knew Raleigh's was, 75 percent of the  
11 time, under your health screening level; is that right?

12          A.   Right, right.

13          Q.   Well, if you knew that, did that raise a doubt  
14 in your mind as to whether this statement was true, that  
15 the levels of hexavalent chromium in these wells are  
16 generally in the range of the same constituents in  
17 municipal drinking water supplies in other parts of the  
18 state?

19                   MR. ROSSER:        Objection.

20                   MS. LeVEAUX:       Objection.

21                   MR. ROBBINS:       Objection.

22                   THE WITNESS:       Again, I relied on DEQ.  Since  
23 that is within their purview, I relied on them.

24                   BY MR. HOLLEMAN:

25           Q.   Now before you sent out the October 15, 2015,

1 letter, did you talk to anyone at Duke Energy?

2 A. No, sir.

3 Q. Did you meet with anyone at Duke Energy?

4 A. No, sir.

5 Q. Before the "do drink" letter was sent out in  
6 2016, did you talk to anyone at Duke Energy?

7 A. No, sir. At -- I will just qualify that. The  
8 only conversation I have ever had personally with Duke  
9 Energy was Bob Kaylor who I know, because our children  
10 were friends, back in July when I was walking in the  
11 legislature one day and he said "Hello." And he said  
12 "you know I am with Duke Energy?" That is the only  
13 conversation I have ever had with Duke Energy.

14 Q. And that includes meetings or phone calls?

15 A. Correct.

16 Q. Did the Secretary meet with Duke Energy before  
17 you sent out the "do drink" letters?

18 A. I believe so.

19 Q. And which Secretary?

20 A. Secretary Brazier.

21 Q. And when did he meet with them?

22 A. I don't know. He met with them sometime in  
23 the Fall. I don't know if it was before the letter or  
24 after the letter.

25 Q. And when you say "the letter," you mean

1 Exhibit 297, the October 2015 letter?

2 A. Yes, sir. And the reason I know that is, is  
3 that he came back and we had a meeting with Mina and  
4 Megan and me and Danny, I think. And he had some  
5 information from Duke that was a list of states and their  
6 Groundwater Standards, I believe.

7 And he said, "Well, I had a meeting with Duke"  
8 -- which, again, was one of hundreds of meetings he had  
9 as he became Secretary, which is -- part of our parcel is  
10 that we very much try to engage people and listen to  
11 them. And so I don't know the exact -- you know, that  
12 was my sense that is what the meeting was about. And he  
13 said, "Well, they provided this information."

14 So when I looked at it, it looked like to me  
15 it was really not standards similar to the ones we set.  
16 So I had Mina and, I think, Megan -- but certainly Mina  
17 -- review it. And that was correct. It was not  
18 applicable to what we had done.

19 Q. So why was Secretary Brazier meeting with Duke  
20 Energy about the levels of hexavalent chromium in other  
21 people's wells?

22 MS. LeVEAUX: Objection.

23 MR. ROBINS: Objection.

24 MR. ROSSER: Objection to form, move to  
25 strike.



1                   THE WITNESS:     And again, you know, I just --  
2     you know, part of our culture is to be accountable, is to  
3     be collaborative and to serve the people. We say that  
4     every day. And so it bothers me when it seems nefarious  
5     that we meet with people. You know, I have met with  
6     private citizens who own wells. I am sure people from  
7     Duke Energy wonder "Why are you meeting with them?" I  
8     would just tell you that part of our culture is, is we  
9     want to listen. So I will meet with anyone in this room  
10    at any time and listen to your concerns.

11                   BY MR. HOLLEMAN:

12                   Q.     Why do you think Duke Energy would consider it  
13    unusual for a Deputy Secretary of Health to meet with  
14    someone who is drinking well water that has been tested  
15    by the government to have hexavalent chromium in it? Why  
16    would that -- why would you say that was unusual?

17                   MR. ROBBINS:     Objection.

18                   MR. BARKLEY:    Objection.

19                   MR. ROSSER:     Again, objection to form, move  
20    to strike -- "unusual."

21                   MS. LeVEAUX:    Objection.

22                   THE WITNESS:     Again, I -- in a very  
23    contentious environment, it seems to me that whenever we  
24    meet with certain groups, that people cast aspersions on  
25    our motives.

1 BY MR. HOLLEMAN:

2 Q. Who are the certain groups you are referring  
3 to?

4 A. Well, it seems to me in the media, if we have  
5 a meeting with Duke, that that cast aspersions on our  
6 motives.

7 Q. What is your understanding of Duke's interest  
8 in how much hexavalent chromium is in someone's drinking  
9 water well ---

10 MR. ROSSER: Object to the form.

11 BY MR. HOLLEMAN:

12 Q. --- and what the Health Screening Level is?

13 A. Right. My sense is, from reading articles in  
14 the press -- one written by Bruce Henderson in the  
15 *Charlotte Observer* in January -- was that his statement  
16 was relying on that, was that it is Duke Energy's  
17 contention that this is background.

18 Q. But for the people who are drinking hexavalent  
19 chromium, the issue is a health risk. Why would Duke  
20 have any interest in what the Health Screening Level is?

21 MR. ROSSER: Objection.

22 MS. LeVEAUX: Objection.

23 MR. ROBINS: Objection.

24 THE WITNESS: Well, again, I think from the  
25 standpoint of -- that if we have issued "do not drinks"

1 for something that is background, that is certainly  
2 something we would factor into our analysis.

3 BY MR. HOLLEMAN:

4 Q. What difference does it make in your job, as  
5 being responsible for the public health, and in terms of  
6 these people's health, whether it is background or not?

7 A. Because when we were first asked to look at  
8 this, and we -- we volunteered to do this, to look at the  
9 Health Risk Evaluations and the Health Screening Levels  
10 and the "do not drinks." It is because we thought this  
11 was a point source of contamination. We normally, as you  
12 know, don't check for hexavalent chromium or vanadium in  
13 our 6,000 new wells we check every year. And the other  
14 2.5 million people who drink out of 900,000 wells, we  
15 don't check for hexavalent chromium and vanadium.

16 This was a very specific request that we had,  
17 so that we had a situation where we were clearly in a  
18 unique situation that we didn't do for the other 2.5  
19 million people in North Carolina. And why did we do  
20 that? If we were going to do that, why didn't we do it  
21 for everybody? Because at the time, there was a question  
22 that it was a point source of contamination. If it had  
23 shown to be background, then that would lead to our  
24 thinking that it isn't a point source of contamination.

25 Q. But that doesn't -- whether it is a point

1 source or not doesn't affect these people's health. It  
2 is the amount of hexavalent chromium they drink, is that  
3 correct?

4 A. Well, let's talk about that ----

5 Q. Is that true?

6 MS. LeVEAUX: Objection.

7 MR. ROSSER: Objection.

8 MR. ROBBINS: Objection.

9 BY MR. HOLLEMAN:

10 Q. Just answer my question.

11 A. Right. The source -- the source of the  
12 hexavalent chromium or vanadium would be immaterial to  
13 the ---

14 Q. Okay. So let me ask you this: what is the  
15 Health Screening Risk, according to HHS, for .07? Is it  
16 one in a million lifetime risk if contracting cancer?

17 A. Yes, sir. That is what we calculated. But  
18 let's talk about that.

19 MS. LeVEAUX: Objection.

20 MR. ROSSER: Objection.

21 MR. ROBBINS: Objection. Please let him  
22 answer the question.

23 MR. HOLLEMAN: If this continues, then,  
24 Brent, I just want to tell you, I said "let's see how it  
25 goes." It may not -- you may not have a chance to ask

1 any questions.

2 MR. ROSSER: Well, I think he is entitled  
3 to answer the questions.

4 MR. HOLLEMAN: Sure, I will let him do it,  
5 but just let's be clear that it is going to eat up the  
6 time, so go ahead.

7 THE WITNESS: Let's look at that number.  
8 Again, that number is derived from modeling based,  
9 really, on rat and mice data. And when you look in  
10 humans, the data we have is from really the exhibit that  
11 I have given -- I am going to give you now, which is a  
12 study out of Greece. And it is -- already may be an  
13 exhibit. I don't know, but -- so that when we set the  
14 level of .07, we based that on that Cancer Slope  
15 Curve ---

16 BY MR. HOLLEMAN:

17 Q. Just for the record, let's make this an  
18 exhibit, please.

19 (PLAINTIFF-INTERVENORS EXHIBIT 299  
20 WAS MARKED FOR IDENTIFICATION.)

21 And tell us what you have brought to the  
22 deposition, Exhibit 299.

23 A. This is an article "Oral ingestion of  
24 hexavalent chromium through drinking water, and cancer  
25 mortality in an industrial area of Greece - An ecological

1 study" by Athena Linos and others, published in the  
2 Environmental Health 2011, Volume 10, Number 50. And I  
3 would read to you from this article the conclusions.

4 This is a study that looked over about an 11  
5 year period at -- an ecological study of the risk of  
6 cancer. And it said, "Elevated cancer mortality in the  
7 Oinofita area of Greece supports the hypothesis of  
8 hexavalent chromium carcinogenicity via the oral  
9 ingestion pathway of exposure. Further studies are  
10 needed to determine whether this association is causal,  
11 and to establish preventative guidelines and public  
12 health recommendations."

13 So, again, when we say from DHHS that we  
14 consider hexavalent chromium to be a carcinogen, and that  
15 we think that -- we are talking about orally now, not  
16 inhalational -- that in oral, that we consider it a  
17 carcinogen. I think it is very important to look at the  
18 preponderance of evidence for that. If you look at that  
19 evidence in mice and rats, it is for stomach cancer.

20 Now, we know the number one cause of stomach  
21 cancer is H. pylori. The second or third leading cause  
22 of cancer in the world in developing countries, 75  
23 percent of them will have H. pylori, not hexavalent  
24 chromium. If you look at the clinical diagnosis of  
25 stomach cancer, which makes up less than 1 percent of all

1 cancers in the United States and talk to  
2 gastroenterologists, they don't consider hexavalent  
3 chromium to be a risk factor for stomach cancer. They  
4 would consider H. pylori, smoking and other things.

5 So that when I turn on the news at night and  
6 see a reporter go, "The cancer containing water down in  
7 Lee County," I have great concern that we have gone from  
8 a message of a 1 in a million or 1 in 150,000 based on  
9 mice and rats, with an ecological study that did not even  
10 show an increased risk of stomach cancer, that the  
11 message we are imparting raises people alarm  
12 disproportionately to the risk.

13 Part of my job as State Health Director is to  
14 protect the people's health. But also part of my job is  
15 to not unduly alarm people.

16 So back to your original question. At the  
17 risk of .07 or, for that matter, the other numbers you  
18 mentioned, in California and any other place in the  
19 United States, at 5 they could drink the water. Out of  
20 315 million people in this country with a hexavalent  
21 chromium level of 5, they could drink their water. We  
22 have literally singled out 240 people out of the entire  
23 United States for a one in a hundred thousand, one in a  
24 million theoretical risk of cancer that we do believe is  
25 a carcinogen in mice, and so therefore we are thinking,

1 the better part of valor, we want people to be aware of  
2 their risk. We would rather err on that side.

3 But to raise that to a level to say on the  
4 news that you have cancer causing water, and not even say  
5 what cancers you are talking about, gives me great pause  
6 that someone right now in Lee County might have a  
7 glioblastoma and think, "Well, it is because we drank  
8 this water." So that is why it matters.

9 Q. Dr. Williams, are you a toxicologist?

10 A. I am not.

11 Q. Are you an expert in toxicology?

12 A. I am not.

13 Q. Are you an epidemiologist?

14 A. I am not.

15 Q. Are you an expert in epidemiology?

16 A. I am not.

17 Q. You are an OB/GYN, is that correct?

18 A. Who takes care of patients clinically.

19 Q. Right. So would you allow, for example -- in  
20 your practice, would you have allowed a toxicologist to  
21 come in and begin delivering babies or treating pregnant  
22 women?

23 MS. LeVEAUX: Objection.

24 MR. ROBBINS: Objection.

25 THE WITNESS: Again, the point is is that I



1 do not pretend to be a toxicologist, but in making policy  
2 I have to take under advisement both the data that my  
3 subject matter experts give me, but I also have to apply  
4 it clinically. I have to apply it to people.

5 So when you ask me why 5 is important to me,  
6 it is because as we look -- and it is establishing policy  
7 -- we look at five things. One, we look at the public  
8 health. And so, as we looked at these people and looked  
9 at a vanadium level of 0.3, when the average level of  
10 vanadium, I think, in water is 1, and that you have  
11 studies, which I am going to show you now, in which  
12 we ---

13 BY MR. HOLLEMAN:

14 Q. If -- I mean, you can show me studies, but let  
15 me go back to my question.

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 MR. ROSSER: Objection.

19 BY MR. HOLLEMAN:

20 Q. I am going to state my question and see if you  
21 can answer my question.

22 A. Yes, sir.

23 Q. When you were administering and working in  
24 your OB/GYN clinic, would you have allowed a toxicologist  
25 to come in and deliver babies and treat pregnant women?

1 MS. LeVEAUX: Objection.

2 MR. ROBBINS: Objection.

3 MR. ROSSER: Objection to form.

4 THE WITNESS: No, sir.

5 BY MR. HOLLEMAN:

6 Q. Now, you referred to test in mice?

7 A. Yes, sir.

8 Q. Is it not true that in science, it is standard  
9 practice to determine carcinogenic effects by doing  
10 animal testing?

11 MR. ROBBINS: Objection.

12 MS. LeVEAUX: Objection.

13 MR. ROSSER: Object to the form.

14 THE WITNESS: Yes, sir.

15 BY MR. HOLLEMAN:

16 Q. Are you aware that the National Toxicology  
17 Program of the US Department of Health and Human Services  
18 has stated -- and this is a quote -- "Chromium hexavalent  
19 6 compounds are known to be human carcinogens based on  
20 sufficient evidence of carcinogenicity from studies in  
21 humans"?

22 MS. LeVEAUX: Objection.

23 THE WITNESS: Yes, I am aware of that  
24 statement.

25 BY MR. HOLLEMAN:

1 Q. Now, do you agree with that statement?

2 A. Yes.

3 Q. And in addition, are you aware the National  
4 Institute of Health has stated that, quote, "That there  
5 is 'clear evidence' that hexavalent chromium is  
6 carcinogenic"?

7 MR. ROSSER: Objection.

8 THE WITNESS: Yes, I agree with that  
9 statement.

10 BY MR. HOLLEMAN:

11 Q. And would you agree that the National  
12 Toxicology Program of the US Department of Health and  
13 Human Services and the National Institute of Health have  
14 greater expertise in determining what is a human  
15 carcinogen than you do?

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 MR. ROSSER: Objection, lack of foundation.

19 THE WITNESS: Yes, I agree that it is a  
20 human carcinogen.

21 BY MR. HOLLEMAN:

22 Q. Well, do you agree that those two institutions  
23 have greater expertise than you do ---

24 MR. ROSSER: Objection.

25 MS. LeVEAUX: Objection.

1 BY MR. HOLLEMAN:

2 Q. --- in determining what is a human carcinogen?

3 MR. ROSSER: Objection.

4 MR. ROBBINS: Objection.

5 THE WITNESS: Yes, but I agree with them.

6 BY MR. HOLLEMAN:

7 Q. And do you agree with this statement from the  
8 California Environmental Protection Agency, quote, "Taken  
9 together, the toxicity and cancer studies in humans and  
10 animals, plus the mechanistic toxicokinetic and  
11 genotoxicity studies provides sufficient evidence for the  
12 carcinogenicity of Chromium 6 in humans"?

13 MR. ROSSER: Same objection.

14 MR. ROBBINS: Objection.

15 MS. LeVEAUX: Objection.

16 THE WITNESS: Yes.

17 BY MR. HOLLEMAN:

18 Q. And do you agree with that statement.

19 A. Yes.

20 (Pause.)

21 So now, can I elaborate?

22 Q. If you would let me ask -- you can respond to  
23 Mr. Rosser's questions ---

24 MR. ROBBINS: And I am going to object for  
25 the record here, because that is three times in a row you

1 have interrupted my witness, the one that you wanted to  
2 talk with. Let him answer the questions.

3 MR. HOLLEMAN: I am more than happy for him  
4 to answer the questions, but I would rather him not give  
5 stump speeches.

6 MR. ROBBINS: If you want to get to the  
7 truth, let him answer the questions.

8 MR. HOLLEMAN: I would love to hear the full  
9 truth.

10 THE WITNESS: Okay. So in that case, again,  
11 if you look at -- to your point, that when we look at  
12 what causes cancer in humans, we rely on animal studies  
13 and, in some cancers, if you look at stomach cancer, the  
14 one that hexavalent chromium has been associated with, 75  
15 percent of those are associated with H. pylori infection,  
16 which in humans has been shown at the cellular level to  
17 change the DNA and cause cancer. It is the only bacteria  
18 that has been proven to cause cancer in humans at the  
19 cellular level.

20 If you look at HPV in cervical cancer, type 16  
21 and 18, in humans, it has been shown causality to show  
22 cancer. So in the study that I showed you -- again, if I  
23 could see that back -- I agree with this statement. And  
24 again, as I am State Health Director, have to talk about  
25 the weight of evidence to support policy and effects of



1 cancer, kidney cancer and reproductive tract cancers.  
2 They did not see an increased risk in stomach cancer.

3 Q. So you think -- so it is your view that  
4 consumption of hexavalent chromium may also raise a risk  
5 of cervical cancer?

6 A. I don't know that. No, I am not saying that  
7 at all. What I am saying is that the studies that you  
8 quote in humans that correlate hexavalent chromium with  
9 cancer in humans, since you can't do those studies in  
10 humans, and there hasn't been shown to be a causal link,  
11 are these ecological studies. In this study which I have  
12 provided you, they just saw an increase in liver, kidney  
13 and they say reproductive tract tumors. That could be  
14 ovarian, that could be uterine. I don't know. It  
15 doesn't specify.

16 Q. Now, before you sent out the "do drink"  
17 letter ---

18 A. (Interposing) Yes.

19 Q. --- did you talk with Governor McCrory?

20 A. No.

21 Q. Did you talk with anyone on Governor McCrory's  
22 staff?

23 A. The only persons that I would have talked to  
24 would have been Josh Ellis in the Communications Office  
25 once or twice. And I think one time I met with Rick

1       Martinez, but not about the letters.

2               Q.   Well, let's start with Mr. Ellis.  What  
3       communications did you have with him?

4               A.   Okay.  Could I -- could I just update a little  
5       bit and then I will answer your question, I promise, from  
6       October, after the letter went out?

7               Q.   Well, if you could answer my question and then  
8       we can go back to that point.

9               A.   Okay.  I had a conversation with Josh Ellis  
10       sometime, I think, in December or January driving back  
11       from Charlotte.  And I do not remember at all what that  
12       conversation was about.  I suspect it was about well  
13       water, but I don't know.  I just don't remember.

14              Q.   Do you remember what he said?

15              A.   I don't.

16              Q.   Do you remember the substance of what he said?

17              A.   I don't.

18              Q.   Do you remember what his concerns were?

19              MR. ROSSER:       Objection.

20              THE WITNESS:     I don't.

21              BY MR. HOLLEMAN:

22              Q.   Do you remember what you said?

23              A.   No.

24              Q.   Did you talk with him again?

25              A.   Yes.



1 Q. And when was that?

2 A. Okay. That was on -- and I am -- if I have  
3 talked to him other than that, I don't remember. The  
4 next time was on February the 25<sup>th</sup>. I think that is  
5 correct.

6 Q. And what was ---

7 A. (Interposing) The nature of that conversation?

8 Q. --- the nature of the conversation?

9 A. Good. And the nature of that conversation was  
10 during that space of time -- and, again, this will be a  
11 little long winded, and I apologize -- after the letter  
12 went out, went down and met with Amy Brown. She was  
13 gracious enough to show me around ---

14 Q. (Interposing) Just so we will be clear, and  
15 then you can finish, when you say "the letter went out,"  
16 which letter are you referring ---

17 A. (Interposing) The October 15<sup>th</sup> letter.

18 Q. Thank you, go ahead.

19 A. And I am going to try to make this as quick as  
20 I can.

21 Q. Go ahead.

22 A. So in January -- on January 13<sup>th</sup>, there was an  
23 Environmental Review Committee meeting in which at that  
24 meeting Mr. Reeder was very demonstrative about  
25 criticizing that there were people in Charlotte or areas

1 that were driving from houses to other houses to drink  
2 and use water that had higher levels of hexavalent  
3 chromium than the houses they were leaving. Megan was at  
4 that meeting. And when she got up to respond to that,  
5 there was a lot of clamor, I guess you would say, in the  
6 General Assembly. And she said -- she was asked three  
7 times, "Well, what would you do about that if somebody in  
8 municipal water had higher levels?" And she said "filter  
9 your water." I will get back to that.

10 But I got up then -- this is all on audio  
11 tape. You can watch this, or you can hear it -- and said  
12 "We don't regulate municipal water in DHHS." I am moving  
13 on.

14 So during this time. the general consensus was  
15 from the staff -- Danny, Megan, Mina and me -- I would  
16 say, that we were waiting on the data that DEQ had said  
17 -- talked about in that letter on background wells. So  
18 starting in January, after that meeting, on about seven  
19 occasions, when I was asked -- and I will go through  
20 those later, I am getting back to your question, I  
21 promise -- I was asked, "Well, Dr. Williams, what is  
22 going on with well water? You are in the Environmental  
23 Review Committee." They argued -- Senator Rabon said,  
24 "This is chaos," that people are hearing different  
25 things.

1 I would say publicly to North Carolina County  
2 Commissioners, different places, that we were waiting on  
3 the data. But based on the information we had now, if  
4 the background data supported that this was background,  
5 we were clearly going to look at rescinding the "do not  
6 drinks." I said that publicly, starting after January  
7 13<sup>th</sup>. Okay?

8 So on February 24<sup>th</sup> -- yes, is that right --  
9 no, 23<sup>rd</sup>, whatever that Wednesday is, I called a meeting  
10 of Danny, Megan, Mina and Chris Hoke, because we now had  
11 an emerging issue in Lee County where they were using our  
12 hexavalent chromium levels and our vanadium levels that  
13 had been established specifically for CAMA, and not the  
14 other 6,000 people and the other 2.5 million people, and  
15 they had unilaterally, talking to our staff, taken our  
16 levels and applied them to well water in Lee County.

17 And there was a tremendous amount of clamor.  
18 I went down there and talked to them in a public forum on  
19 January 25<sup>th</sup> or so, and a lot of really angry people.  
20 Remember, there was no coal ash in Lee County, but they  
21 had used our levels. And 17 of the 24 wells came back  
22 elevated for hexavalent chromium and vanadium. So when I  
23 went down there they were very angry because they felt  
24 like their wells had been contaminated by -- I am not  
25 sure what, because there is no coal ash there. But they

1       were angry.

2                       So I called a meeting and said, "This is a  
3       dynamic process, this is not a static process. We issued  
4       letters a year ago, but in this space" -- we are now  
5       talking about in a public forum regulating municipal  
6       water, because people ask us. And now we are regulating  
7       water in wells that aren't even CAMA. We are not doing  
8       it for our other 6,00 new wells; we are not doing it for  
9       the other 900,000 people; nobody else in the country is  
10      doing it as these levels. And our people got to talk  
11      about rescinding the "do not drinks."

12                      So that initiative came from me. Okay,  
13      because I think -- it came from me. I called them  
14      together. Megan was on a conference call. She was in  
15      Atlanta. And as Mina said in her deposition, I just kind  
16      of -- which is accurate -- just kind of freely thought  
17      and said, "When I look at the levels of 0.3 and .07, that  
18      I don't think that proportionally that they warrant the  
19      'do not drink' recommendation. I am all for keeping the  
20      HREs. The science that made those HREs I am all for it.  
21      The fact that it is associated with cancer, I back that.  
22      You have heard me under oath say I think it causes cancer  
23      in humans at some level. But when you look at those  
24      levels, I am not convinced that those levels that we have  
25      rise to the level of more than education."

1           Okay. Second thing was, as we looked all  
2 around the country, that all of our peers -- other states  
3 have toxicologist, other states have epidemiologist,  
4 other states have State Health Directors. The EPA has  
5 15,000 people, they have been looking at this since the  
6 '90's and specifically since 2008 -- they haven't weighed  
7 in on this. And we always look at what our peers do.

8           And I was very concerned from listening to  
9 lots of people, from going down there and talking to  
10 people, going to the forum, listening to people in the  
11 legislature, that we have raised this -- especially for  
12 hexavalent chromium -- to a level that had engendered  
13 fear. I can tell you, Frank, in all of my conversations  
14 -- and I have had hundreds -- I think people have asked  
15 me about vanadium once. And I can remember the lady in  
16 Colon, North Carolina who did. I can't get people to  
17 talk about vanadium.

18           But it is cancer. And what I think an  
19 unintended consequence of our policy was, was that when  
20 we interjected the word "cancer" in the conversation,  
21 whether it was one in a million or one in a hundred  
22 thousand or what type of cancer, that I felt as Public  
23 Health Director one of the things we had to be very  
24 careful about was not unduly alarming people, whether it  
25 is Zika virus in mosquitoes or whatever, and that that

1 had, in fact, happened. I promise I am getting to your  
2 question.

3 So at that meeting, I said, "I just -- I want  
4 to keep the HREs, but I feel like we ought to rescind the  
5 "do not drinks". Danny and Chris -- I had already talked  
6 to Danny about it. And Danny agreed. Danny was totally  
7 on board with that as a Director of the Division of  
8 Public Health. So when Megan says in her deposition that  
9 Danny felt that we should wait on the data, at that  
10 meeting, that is not correct. Previously he thought that  
11 and I thought that. It became apparent to me at a  
12 meeting with the -- with the North Carolina County  
13 Commissioners in late January, Tom said that the data  
14 that we were waiting for since October wasn't back yet.

15 Q. Who is Tom?

16 A. Tom Reeder. He said it wasn't -- Duke hadn't  
17 sent it yet. And I said, "Well, when are they going to  
18 send it? It has been October, it is now January." And  
19 he said four weeks. Mid-February, two weeks after I was  
20 in a meeting with Tom, and I said -- because I had been  
21 out there saying, "this data is coming anytime now from  
22 the wells." This was data that Duke was going to provide  
23 to DEQ to look at background wells away from -- this is  
24 my understanding.

25 So I was up at Capitol Hill, I said this. I

1       said this to the North Carolina County Commissioners. I  
2       said this to the Lee County Commissioners. I said, "We  
3       are just waiting on the data, and if that is background,  
4       based on everything else we know, we will talk about  
5       rescinding the 'do not drinks.'"

6                 Well at the meeting two weeks after he said  
7       four weeks, he said it would be Summer. And I said at  
8       that meeting, famously, "When I am deposed, I am going to  
9       say you told me four weeks, and now you are telling me  
10      Summer." And he said, "Well, you misunderstood me." And  
11     I said, "Well, at my deposition I am going to say you  
12     said four weeks."

13                So at the meeting, I told the four of them  
14     that I did not think that in this dynamic situation where  
15     we were now applying standards to municipal water, that  
16     we had Lee County using our standards for water that  
17     didn't have anything to do with CAMA, which was what we  
18     had initially been asked to do, that I thought we  
19     couldn't wait for the data. And as I sit here today, it  
20     is May and the data still hasn't come.

21                So we all agreed to rescind the "do not  
22     drinks." Now Megan, in her deposition says that she did  
23     not do that. But at that meeting -- and you are welcome  
24     to depose Chris and Danny, and she was on the phone -- I  
25     asked them twice, did I somehow miss it -- at that

1 meeting, when I said -- and again, as I sit here before  
2 you under oath, I can't -- we didn't vote. I have never  
3 been in a meeting where we voted. I just said, "Is  
4 everybody okay with that? Is everybody on board with  
5 that," I don't remember my exact language.

6 And so as Danny has pointed out, nobody  
7 objected. And so when I say that we had consensus to  
8 rescind the "do not drinks," it is based on that meeting  
9 at which we called for that reason, from five people.  
10 And those are the only five people who were involved in  
11 that meeting.

12 Q. What meeting?

13 A. This was the meeting on February 23<sup>rd</sup>, on a  
14 Wednesday at 4:00 o'clock in the afternoon over in DHHS  
15 on District Drive -- on Six Forks, that I called for that  
16 reason. So, now, I am still getting to your question.

17 Q. Let me just restate what I think my question  
18 was, as I recall, from several minutes ago.

19 A. I apologize.

20 Q. And that is, I believe you had said you had  
21 talked with Mr. Ellis ---

22 A. (Interposing) Right.

23 Q. --- on two occasions.

24 A. Right.

25 Q. And my question to you was, what was the



1 second occasion?

2 A. Right. And I am getting ready to tell you  
3 right now, I promise. So that -- we decided that. So,  
4 there has been some criticism of me that I said that we  
5 had consensus, and they have looked at the deposition --  
6 but at that meeting, I came out of the meeting, and to  
7 this day, under oath, I will tell you that it was my  
8 impression we had consensus. And I asked after that  
9 meeting -- for a reason I am going to tell you later --  
10 if I had anyhow misunderstood that, and I was told no.  
11 Okay.

12 So on Thursday night -- this was on Wednesday  
13 -- on Thursday night I get a text, I believe, from Rick,  
14 the Secretary, and he says, "I just had a conversation  
15 with Duke Energy." I don't know who he talked to. I  
16 don't know what that was about. And he said -- I had  
17 told Rick on numerous occasions my frustration for not  
18 having the data. Rick's culture is, "We run our shops."  
19 So we make him aware, we bring things up to him.

20 So he said -- I think, if I remember the  
21 conversation correctly, he said -- I mentioned that we  
22 just really would like to get that data sometime. And he  
23 said, "What data?" And I said the data from the  
24 background. He said, "We have had that data for two  
25 months. We sent it to DEQ two months ago."

1                   And so he called me -- or I called him, he  
2                   said, "Randall, I have the data. I am sending it to you  
3                   right now." And it was an e-mail, I think.

4                   And so I got the data. It was a report from a  
5                   group called Hayden and Autrey (phonetic) out of Boston.  
6                   It was -- it was enormous. It was like 600 pages of just  
7                   reams of data in a narrative report. Okay? So that was  
8                   on a Thursday night. I was in Winston, I remember  
9                   distinctly. The next day was in the North Carolina Rural  
10                  Health Conference. So I stayed up, I read what I could.  
11                  And I -- I can't remember when I talked to Rick, but,  
12                  anyway, I called our communications office, because one  
13                  of the tasks I had had was to write a letter responding  
14                  to Lee County, okay?

15                  Just -- just this, "Why are you using levels  
16                  from the state for Lee County, when you don't look at the  
17                  other 6,000 people and the other 2.5 million people? And  
18                  they were supposed to be in a point source down in -- in  
19                  Gaston County and others." And I called Kendra Gerlach,  
20                  who is our Communications Director, and I said, "Well, I  
21                  have data here that is -- shows that this is background,  
22                  as I read the report." And the report said that for  
23                  vanadium and hexavalent chromium in these other wells.

24                  She then talked to Josh Ellis, who is at the  
25                  Governor's Communications Office. And he called back and

1       said, "You cannot use that data because it hasn't been  
2       vetted by DEQ." So I said "Okay." So that weekend I  
3       called Tom Reeder and I said, "Tom, I have this huge  
4       volume of data from Duke Energy about background wells,  
5       and a narrative report -- kind of a consultants report,  
6       and as I read it this looks like hexavalent chromium and  
7       vanadium are background."

8                He said "Oh, yeah, we have had that." And I  
9       said, "Well, Tom, for two months it has clearly been my  
10      understanding that we are waiting for the data from  
11      Duke." And he said, "Well, you misunderstood me. We are  
12      analyzing that data." And so I said "Okay." So I gave  
13      the data to Danny Staley. And Danny looked at it, who  
14      has been a local health director and a Director. And I  
15      will never forget, I called him Sunday night or  
16      something, I said "What do you think?" He said "It is  
17      all background." That is what he said.

18               So I talked to Rick either on Monday or  
19      Tuesday -- this is now February 29<sup>th</sup>, March 1<sup>st</sup>. And Rick  
20      said, "I have talked to Secretary van der Vaart" -- I can  
21      remember where he was standing when he said this. He  
22      said, "You can't use or rely on the data because it has  
23      not been vetted by DEQ."

24               And the reason that is important is, I have  
25      not. I have never looked at the report again. I never

1 -- I couldn't -- I just don't remember that much about  
2 it, because I thought I was going to have plenty of time  
3 to go through it. It was very long. And that was not  
4 unfamiliar to me because many time, in trials, I will  
5 have a judge say to me, "Dr. Williams, you are not  
6 allowed to use that in your decisions." When I was a  
7 jury foreman, we were not allowed to use the fact that  
8 the witness -- I wasn't the foreman, I am sorry. When I  
9 was on the jury, we weren't allowed to use the fact that  
10 the witness wasn't testifying against him in making our  
11 decision. And I have had cases where things were  
12 inadmissable in court.

13 So even though I had that, the only person  
14 that knows that is me and Danny. I have not shared that  
15 with anybody else in DPH and never made any decisions  
16 based on that. That is my only two conversations I know  
17 of, I think, with Josh Ellis.

18 Q. What about -- I believe you said you talked to  
19 Mr. Martinez?

20 A. Yes. That was sometime in February. We had a  
21 meeting at DEQ. And Tom Reeder and I were going to do a  
22 television interview, I believe. And we were just -- he  
23 was there in the room as we were getting ready to do the  
24 television interview, as I remember. He was in  
25 communications, I think.

1 Q. What is his job? Do you know what  
2 responsibility he has in the Governor's Office?

3 A. I think he -- no. I think it is  
4 communications.

5 Q. Have you talked with anyone else in the  
6 Governor's Office?

7 A. No.

8 Q. Now, let me go back to this. What is the  
9 cancer risk for .7 parts per billion of hexavalent  
10 chromium in drinking water? If .07 is a million -- one  
11 in a million, what is the risk at .7?

12 A. Right. And I am going to answer you the way I  
13 often answer in trial, and that is this: is that  
14 Aristotle said, "It is an educated man who does not  
15 assess a level of precision to that which does not lend  
16 itself to precision." So when we sit here and go that  
17 the risk is 1 in a hundred thousand versus one in ten  
18 thousand, one in -- I would tell you that, based on that  
19 Cancer Slope curve, if we are talking about which cancer  
20 -- stomach cancer -- that I do not think you can get at  
21 that level of precision. And for me to tell you that, I  
22 just, as a clinician who takes care of patients, disagree  
23 with.

24 So my answer is, is that as we made our  
25 decision, there were five people in the room: a clinical

1 doctor, a head of public health who had been in a local  
2 health department and was head of the Division of Public  
3 Health with a degree -- a Master's in public health, an  
4 epidemiologist, an environmental engineer, and a lawyer  
5 with 30 years experience. And we used all of that  
6 experience to make our decision.

7 So as a clinician, I am happy for you to have  
8 the toxicologist and the population health people walk  
9 you through those numbers, but as a clinician who takes  
10 care of patients, that one in a hundred thousand, that  
11 one in ten thousand, I do not think that we can assign a  
12 level of precision to that.

13 Q. So you are saying you don't know the cancer  
14 level risk at .7?

15 MR. ROSSER: Objection.

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 MR. BARKLEY: Objection.

19 THE WITNESS: I would tell you that I know  
20 what the Cancer Slope curve says. But clinically,  
21 talking to a patient across the desk, I would never give  
22 the level of certainty to say to her, based on that,  
23 "Well, don't worry, your risk is only one in ten -- we  
24 are so knowledgeable about this. We know so much about  
25 this, it is okay. Yours is one in ten thousand. Her's

1 is one in a hundred thousand." I do not believe that  
2 evidence supports a clinical decision.

3 BY MR. HOLLEMAN:

4 Q. And I guess my question, again, is do you know  
5 what the cancer risk is at .7 hexavalent chromium parts  
6 per billion if .07 is one in a million?

7 A. Clinically, no.

8 Q. Do you know in any way, in any ---

9 A. (Interposing) Based on the modeling?

10 Q. Yes.

11 A. Yes, anyway -- if you do the modeling, at .07  
12 it is one in a million. At point -- what did you say --  
13 .7? It would be one in a hundred thousand. And moving  
14 on down it would be -- you know.

15 Q. And seven would be one in ten thousand?

16 A. Right. But again, I am going to respond to  
17 that. So if you think that the risk from hexavalent  
18 chromium -- if you are going to tell, clinically, a  
19 patient or a group of patients, because their hexavalent  
20 chromium level is 5 that their risk of cancer is one in  
21 ten thousand, I would have to reconcile that fact that  
22 stomach cancer, which is what that modeling is based on  
23 in mice models, is decreasing markedly in the United  
24 States. It is less than one percent of cancers. And the  
25 EPA has had that same data for eight years and has not

1 acted on that. That -- 49 other states have that same  
2 data with toxicologists and epidemiologists and medical  
3 directors, and have not acted on that.

4 Q. Now, would you, as a clinician, recommend that  
5 a patient regularly drink water that has a hexavalent  
6 chromium level of 20 parts per billion?

7 MS. LeVEAUX: Objection.

8 MR. ROBBINS: Objection.

9 MR. ROSSER: Object to form.

10 THE WITNESS: No.

11 BY MR. HOLLEMAN:

12 Q. Would you recommend that a patient regularly  
13 drink drinking water that has a hexavalent chromium level  
14 of 10 parts per billion?

15 MR. ROSSER: Same objection.

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 MR. BARKLEY: Objection.

19 THE WITNESS: Yes.

20 BY MR. HOLLEMAN:

21 Q. And would you, as a clinician, recommend that  
22 a patient regularly drink drinking water that has  
23 hexavalent chromium level of 15 parts per billion?

24 A. Fifteen?

25 Q. Fifteen.



1 MR. ROSSER: Objection.

2 MS. LeVEAUX: Objection.

3 THE WITNESS: Fifteen?

4 BY MR. HOLLEMAN:

5 Q. Fifteen.

6 A. No.

7 Q. So your cutoff in your recommendation is  
8 somewhere between 10 and 15?

9 A. Well, it is 10. I mean, it is 10.

10 Q. It is 10?

11 A. Well, I -- so let me tell you where that comes  
12 from and what we are doing on that, is that okay?

13 Q. Well, I just want to -- I will be glad to let  
14 you answer another question if you want to pose it and  
15 ask it, but just to be clear, so 10 is the cutoff for you  
16 of what you would recommend a patient to drink?

17 A. Well, again, I don't know that I would answer  
18 it that way, but let me -- as a clinician ---

19 Q. Let me restate my question and see if you  
20 know. So the point at which, as a doctor, you would  
21 recommend a patient not regularly drink water with  
22 hexavalent chromium in it is at 10 parts per billion?

23 MS. LeVEAUX: Objection.

24 MR. ROBBINS: Objection.

25 BY MR. HOLLEMAN:

1 Q. Is that correct?

2 A. As a clinician, yes.

3 Q. Okay.

4 A. So let me ---

5 Q. And so let me -- why don't I pose a question  
6 and then you can answer it. And why do you pick 10 parts  
7 per billion?

8 A. Right. And I greatly appreciate your patience  
9 with me. Being laconic is not one of my virtues. So, as  
10 you know, there is a very health debate in the United  
11 States about total chromium versus hexavalent chromium,  
12 such that we have several numbers out there. We have a  
13 .02 Health Protective Level from California, .07 Health  
14 Protective Level from North Carolina, we have 10 for an  
15 MCL for California, and 100 for total chromium for the  
16 EPA, which says you can consider that all of hexavalent  
17 chromium.

18 Now, if you follow that logic, then  
19 theoretically they are saying that a total -- if you  
20 consider a total chromium of 100 safe, I would disagree  
21 with that. Okay? So that what we are looking at now is  
22 that, for levels over 10, we have instructed our staff,  
23 at this point, to call anybody with a hexavalent chromium  
24 or total chromium level over 10 -- because theoretically,  
25 people say that total chromium can be all hexavalent

1 chromium. So for those two levels, we are asking those  
2 people to "do not drink" their water.

3 Now, to the best of our understanding, most of  
4 those did not get the letter saying "do not drink," but  
5 some of them did. And we are rescinding that. And we  
6 are calling them personally and saying that if you are  
7 over 10 for either total chromium, which is our  
8 groundwater standard for total chromium in North  
9 Carolina, or hexavalent chromium, at this time.

10 Now, Frank, what confuses that picture is  
11 there is a bill right now before the legislature that  
12 says that North Carolina, if it passed, can only set MCLs  
13 for those substances which have established EPA federally  
14 guided MCLs. There is a lot of angst about that, and a  
15 lot of angst from my staff, Danny and Chris. So we are  
16 having to work, as we speak, because we think it is  
17 vitally important that we have the ability to issue  
18 emergent HREs and "do not drinks" if needed for new  
19 substances.

20 And when you look at hexavalent chromium in  
21 particular, that theoretically, if that law passed, then  
22 the level of hexavalent chromium that could be in water  
23 would be 100. And we disagreed with that.

24 Q. So if I understand what you have said  
25 correctly, for people who have -- over 10 or 10 or more?

1           A.    10 or more for total chromium or hexavalent  
2 chromium.

3           Q.    So for -- so let me pose this question, then.  
4 So as I understand it, for people who have 10 or more  
5 parts per billion chromium or hexavalent chromium in  
6 their well water ---

7           A.    (Interposing) Yes, sir.

8           Q.    --- you have rescinded the "do drink" letter?

9           A.    Yes, sir. We -- we are going to call them.

10          Q.    And you are basing the 10 parts per billion  
11 standard on what?

12          A.    Well, again, at this point we feel like it is  
13 the 10 for the Groundwater Standard for total chromium.  
14 There is a standard for total chromium of 10. So -- and  
15 that is already established. So if you -- if you are  
16 going to make the argument on one hand that total  
17 chromium can be all hexavalent chromium, and you have got  
18 a total chromium of 10, it stands to reason that that is  
19 all hexavalent chromium. And our standard is 10, so we  
20 are -- anything over 10, whether it is total chromium or  
21 hexavalent chromium, we are going to say "do not drink  
22 your water."

23          Q.    So you are basing -- as I understand it, the  
24 agency is basing it on a pre-existing groundwater MCL? A  
25 2L Standard?

1 A. Yes, sir. For total chromium.

2 Q. In North Carolina?

3 A. Yes, sir.

4 Q. Now, you referenced earlier the 100 parts per  
5 billion Federal Safe Drinking Water Standard for  
6 chromium?

7 A. Yes, sir.

8 Q. And are you aware that that was issued before  
9 it was recognized that hexavalent chromium was a human  
10 carcinogen?

11 MS. LeVEAUX: Objection.

12 THE WITNESS: I am. But, again, my point to  
13 that is is that the EPA has had 25 years, especially the  
14 last eight years -- they know that. And so, again, that  
15 is not new news to them. But yet they haven't moved in  
16 the last eight years to change that. And they can move  
17 fairly quickly when they want to.

18 BY MR. HOLLEMAN:

19 Q. And are you aware that it is under  
20 reconsideration by the EPA, 100 parts per billion?

21 A. Absolutely, because I talked to Eric Burneson,  
22 the head of the Water Division for the EPA, and he said  
23 in December, they are going to issue their initial  
24 guidance based on their IRIS standards on this debate  
25 about total chromium versus hexavalent chromium. And

1 that also factored into our decision somewhat as we moved  
2 forward.

3 Q. Now, does everyone -- well, let me back up for  
4 a minute. Before you came to HHS, had you ever dealt  
5 with an issue related to hexavalent chromium?

6 A. No, sir.

7 Q. So what you know about hexavalent chromium is  
8 all on-the-job training since you joined HHS, is that  
9 correct?

10 MR. ROSSER: Object to the form.

11 MR. ROBBINS: Objection.

12 THE WITNESS: It has been since I came. And  
13 I guess if we consider studying on-the-job training, the  
14 answer is yes.

15 BY MR. HOLLEMAN:

16 Q. And the "do not drink" letter was issued  
17 before you got there, is that correct?

18 MR. ROBBINS: Objection.

19 THE WITNESS: Yes, sir.

20 BY MR. HOLLEMAN:

21 Q. And it was issued on the advice of  
22 toxicologists in both DEQ and HHS, is that correct?

23 MR. ROSSER: Object to the form.

24 THE WITNESS: Yes, and it was a departmental  
25 decision.

1 BY MR. HOLLEMAN:

2 Q. Now, do you believe you have more expertise  
3 than the toxicologists in HHS and DEQ concerning what  
4 recommendation should be made, based on a Health  
5 Screening Level for hexavalent chromium ---

6 MS. LeVEAUX: Objection.

7 MR. ROSSER: Objection.

8 MR. ROBBINS: Objection.

9 MR. BARKLEY: Objection.

10 BY MR. HOLLEMAN:

11 Q. --- to well water users?

12 A. Yes.

13 Q. as to this -- did anyone on your staff object  
14 to the issuance of the "do drink" letter at any time?

15 A. Yes. You know, I think Megan and Mina clearly  
16 -- I think Mina -- Megan's last words were she was  
17 conflicted. So I do not want to misrepresent in any way  
18 her participation in that meeting as being -- I think  
19 Megan has always -- who I respect greatly -- has always  
20 had a population health view toward this. And she has  
21 had concerns. One would be that -- she has always had  
22 concerns about expressing risks in comparison to other  
23 risks, like "one in a million versus the risk of being  
24 struck by lightning," or the risk of drowning in a  
25 bathtub or something. She has just clearly stated to me

1       that she thinks that is not the best way, from an  
2       epidemiological standpoint, to express risks.

3               I think Megan and Mina struggle -- and this  
4       has become relevant -- with -- they feel very strongly  
5       that HREs were calculated appropriately, that the  
6       educational part of this remains the same. That -- they  
7       are always concerned, as we talk about "do not drink,"  
8       that we are watering down the message about the risk they  
9       see. And the reason I know this to be true is after that  
10      meeting, we then wrote a letter. And that letter had  
11      many participants in it -- the "do drink" letter.

12              And there is a sentence in that letter that  
13      says, "We will be issuing your forms," because there --  
14      there were people who felt very strongly that they had  
15      gotten a form with the first letter, and it said, "This  
16      is your level. And our recommendation is do not drink."  
17      That is a standard form we use for new wells. We don't  
18      regulate old wells, we regulate new wells.

19              We wrote that letter. I went back to Mina and  
20      I said, "Can you help me design the form?" And she said,  
21      "I don't want to do that." And I said, "Why not?" And  
22      she said, "Well, I -- I just feel like in sending another  
23      form, it looks like we are recanting our HREs. And  
24      professionally, I just disagree with that." And Megan  
25      said the same thing.



1                   So I talked to people, and they said -- and I  
2 famously used this line that -- they said, "Well, we  
3 don't understand that, because they agreed to the other."  
4 and I said, "Yes, but it is like getting married, but  
5 they didn't want to get a marriage certificate." That  
6 they thought, professionally, to send out a form that  
7 could possibly be interpreted as not backing the HREs was  
8 something that they didn't want to do.

9                   And so we didn't do it. We are not going to  
10 do it. So I deferred to them.

11                  Q. Well, the form you are talking about is the  
12 actual Usage Recommendation Form, is that correct?

13                  A. Right, yes.

14                  Q. The "do not drink" letter that went out had a  
15 cover letter from DEQ that gave the testing results, is  
16 that correct?

17                  A. Yes, sir. And we were going to send that same  
18 form out again.

19                  Q. And then attached to it was a Usage  
20 Recommendation Form from HHS?

21                  A. Correct.

22                  Q. And it contained the "do not drink, do not  
23 cook with this water" recommendation, is that right?

24                  A. Right. So the original intent was to send out  
25 the same form ----

1 Q. Well, let's just make sure we get the  
2 chronology correct. So the "do not drink" letter had  
3 attached to it a Usage Recommendation from HHS that  
4 contained the "do not drink, do not cook with this water"  
5 recommendation, is that right?

6 A. Yes, sir.

7 Q. Now, on the "do drink" letter, as I understand  
8 it, the "do drink" letter promises at the end that a  
9 changed Usage Recommendation Form will be issued by HHS,  
10 is that correct?

11 A. Right, correct.

12 Q. And that never happened?

13 MS. LeVEAUX: Objection.

14 THE WITNESS: Correct.

15 BY MR. HOLLEMAN:

16 Q. A new form never went out? A new Usage  
17 Recommendation Form never went out to well owners, is  
18 that correct?

19 MR. BARKLEY: Objection.

20 THE WITNESS: That is correct.

21 BY MR. HOLLEMAN:

22 Q. And that is because Dr. Shehee and Dr. Davies  
23 objected to issuing a new form?

24 MS. LeVEAUX: Objection.

25 MR. ROBBINS: Objection.

1 THE WITNESS: Yes. And as I told Megan at  
2 that meeting, I said, "Megan, up to now, my way of  
3 leading is consensus and collaboration. That is just who  
4 I am." I mean -- and so I said, "I feel like to this  
5 point we have consensus." This was after the February  
6 23<sup>rd</sup> meeting, whatever. This is, like, a week later.

7 "I feel like if I move forward and send this  
8 form that I will not have consensus." And she said,  
9 "That is right. I mean, the two of us would not agree  
10 with that decision." And so I didn't do it.

11 BY MR. HOLLEMAN:

12 Q. Was that conversation after the "do drink"  
13 letter went out or before the "do drink" letter went out?

14 A. No, that was before the "do drink." I mean --  
15 because they -- the -- no, I am sorry. The "do drink"  
16 letter had gone out and -- because I thought we had  
17 consensus. And then when -- and we did, but they made a  
18 distinction between agreeing to the "do not drink" and  
19 the actual form. That, professionally, was different to  
20 them.

21 Q. Now, did you ever make a public announcement  
22 or tell the well owners that ---

23 A. (Interposing) No.

24 Q. If I could finish.

25 A. I am sorry.

1 Q. Did you ever tell the well owners or make a  
2 public announcement that no changed Usage Recommendation  
3 Form would be issued by HHS?

4 A. No. We have not -- we have purposefully  
5 stopped some of our communication, because there is a  
6 bill in the legislature that, if it passes in whatever  
7 form, could have to result in another letter going out.

8 Q. Well, now, was that bill in the legislature in  
9 March of 2016?

10 A. No, but by the time we got around to talking  
11 about sending out that second form, it was. And so at  
12 that point, we just decided the worst thing to do would  
13 be send out another letter and then have to send out  
14 another letter. So for right now, other than the well  
15 owners over the 10, we are holding our communications.

16 Q. Do you think it would have been advisable to  
17 have notified the well owners who had received the "do  
18 drink" letter that the professional staff at HHS were  
19 refusing to issue a changed Usage Recommendation Form?

20 MR. ROSSER: Objection to form.

21 MR. ROBBINS: Objection.

22 MS. LeVEAUX: Objection.

23 MR. BARKLEY: Objection.

24 THE WITNESS: No, because I think "refusal"  
25 is too strong of a word. I just asked them and they

1       said, "We would rather not, because we think it will take  
2       away from the science of the levels that have been set."  
3       And I respected that.

4                   BY MR. HOLLEMAN:

5           Q.    Well, let's take away the word "refusal."

6           A.    Okay.

7           Q.    Do you think it would have been advisable to  
8       inform the people who had received the "do drink" letters  
9       that HHS was not going to issue a changed Usage  
10      Recommendation because of the concerns of the  
11      professional staff?

12                   MS. LeVEAUX:    Objection.

13                   MR. ROBBINS:    Objection.

14           THE WITNESS:    No.  I think the way we will  
15      word that letter is -- we will send out a letter once we  
16      have the opportunity that will say that it is very  
17      important, as we talk about "do not drink" and "drink,"  
18      that you understand that for our HREs that they were  
19      scientifically calculated, and the recommendations about  
20      how you might want to mitigate that stand.

21                   Now, Frank, you have got to remember in this  
22      space is that the report that came out of DEQ on April  
23      1<sup>st</sup> changes the IMAC for vanadium to 20.  So once that  
24      level changes, if it does in fact change, and we derive  
25      from CAMA our HREs, we are going to have to send out

1 another letter telling everybody who is under 20 for  
2 vanadium that they can drink their water. So, as you  
3 see, it is very complex.

4 BY MR. HOLLEMAN:

5 Q. Is it your belief that people should receive  
6 more information, not less, about their health and their  
7 drinking water?

8 MS. LeVEAUX: Objection.

9 MR. BARKLEY: Objection.

10 MR. ROBBINS: Objection.

11 THE WITNESS: No. I think that when you  
12 have a news release that says there is cancer in well  
13 water down in Lee County, that sometimes too much  
14 information is confusing and makes people alarmed.

15 BY MR. HOLLEMAN:

16 Q. So it is your belief that it is better to  
17 withhold some information from the well owners, rather  
18 than to cause alarm?

19 MR. ROSSER: Objection to form.

20 MS. LeVEAUX: Objection.

21 MR. ROBBINS: Objection.

22 MR. BARKLEY: Objection.

23 THE WITNESS: No. I think it is important  
24 that, as Public Health Director, I give out the  
25 appropriate level of information, whether we are talking

1 about Zika or well water or anything.

2 BY MR. HOLLEMAN:

3 Q. Who determines what the appropriate  
4 information is for the public to know?

5 A. Well, I think, you know, certainly,  
6 collaboratively within DPH, we decide that.

7 Q. And do you ultimately have the responsibility  
8 for making that decision?

9 A. I suspect I do. But, again, I would seek the  
10 support of the Secretary. And I would make -- my normal  
11 way of doing things is to seek consensus.

12 Q. Now before you sent the "do drink" letter ---

13 A. Yes, sir.

14 Q. --- did you know that Dr. Davies objected to  
15 the "do drink" letter?

16 MR. ROSSER: Object to the form.

17 MR. ROBBINS: Objection.

18 THE WITNESS: She did not object to the "do  
19 drink" letter at that meeting. She did not object.

20 BY MR. HOLLEMAN:

21 Q. I am not saying at that meeting.

22 A. Right.

23 Q. I am saying before you mailed the letter, had  
24 Dr. Davies expressed an objection to the "do drink"  
25 letter?

1           A.   Not after the time of the meeting on the 23<sup>rd</sup>,  
2   no, she did not.

3           Q.   But before that meeting on the 23<sup>rd</sup>, she had  
4   objected to the "do drink" letter?

5           MS. LeVEAUX:    Objection.

6           MR. ROBBINS:    Objection.

7           THE WITNESS:   Well, everybody had -- I mean,  
8   everybody had objected, because we didn't have the data.  
9   We were waiting on the data.  The thing that changed was  
10  we realized we weren't going to get the data.  Then what  
11  do we do in a dynamic situation?  But when she says Danny  
12  Staley and Randall Williams and whoever objected to  
13  sending out the letter before we got the data in  
14  mid-January, that is true.  I was in that camp.

15          BY MR. HOLLEMAN:

16          Q.   Now, were you aware that -- or did Dr. Shehee  
17  object to sending out the "do drink" letter before it was  
18  sent out?

19          A.   Not after February 23<sup>rd</sup>, but before that, she  
20  would have been like the rest of us, that we were waiting  
21  for the data.  If you would have come to me on -- matter  
22  of fact, I said this in public forms.  When people said  
23  to me, "What is the status," I said, "We are waiting on  
24  the data.  And once we have that data, we are going to  
25  seriously rethink our 'do not drinks.'"  I said that in



1 numerous public forums.

2 Q. At the February 23<sup>rd</sup> meeting, was Dr. Shehee  
3 present at that meeting?

4 A. Yes.

5 Q. Did she say she agreed with the "do drink"  
6 letter at that time?

7 A. Well, again, I have gone back and asked Chris  
8 and Danny, and you are welcome to depose them, but it was  
9 clearly their understanding that they agreed. We did not  
10 vote. We did not go around the room and go "Yay or nay?"

11 Q. Well I am not asking now if there was a vote.  
12 I am asking did Dr. Shehee say she agreed at the meeting?

13 A. I do not remember that she said she didn't or  
14 didn't [sic], but the way I posed the question was, to  
15 the best of my recollection, "Is everybody okay with  
16 this? Is everybody on board with this?" And the answer,  
17 either by not objecting or saying yes -- and I couldn't  
18 tell you around the room -- was yes. But I walked out of  
19 that meeting thinking five people -- and both Chris Hoke  
20 and Danny Staley will tell you the same.

21 Q. All right. Now, let me just -- so we are  
22 clear, at the meeting, did Dr. Davies, who I believe you  
23 said was on by phone, is that correct?

24 A. Right.

25 Q. Did Dr. Davies say that she was agreed with

1 sending out the "do drink" letter?

2 A. In her deposition, she said she told me that  
3 she did not -- she did not -- she told me "I don't agree  
4 with sending the 'do not drink' [sic]." At that meeting  
5 -- she did not say that at that meeting. Neither did Dr.  
6 Shehee, either one. Neither one said to me, "We don't  
7 agree with this" at that meeting.

8 In fact, in the opposite, when posed the  
9 question, "Is everyone on board with this? Do you  
10 understand, are you okay with this?" The answer was  
11 either silence or "yes." And I don't remember -- I  
12 couldn't tell you who said what.

13 Q. Now, just so we are clear, between that  
14 meeting and the mailing of the March 2016 "do drink"  
15 letter, did either Dr. Shehee or Dr. Davies tell you they  
16 objected to the letter being sent?

17 A. I don't remember -- no. I mean, if they did,  
18 I don't remember it, because the letter was sent, like,  
19 March -- now let me just -- let me clarify that. They  
20 didn't say they disagreed with the policy. Let me  
21 clarify that.

22 I am talking about the policy. They probably  
23 did disagree with parts of the letter. So I need to  
24 answer that correctly. Neither of them told me they  
25 disagreed with the policy. I think they probably clearly

1 had problems with the letter, which is a separate entity.

2 Q. Okay. Well, let's look at the letter.

3 A. Okay. That is two different things. The  
4 policy and the letter are two very different things. And  
5 if you told me they disagreed with parts of the letter, I  
6 would agree with that.

7 Q. So would that mean they objected to sending  
8 out the letter that was sent out?

9 A. No, they disagree -- no, I am sorry. The way  
10 the letter was sent out, they probably would have  
11 disagreed with parts of it, yes. But not the policy, but  
12 the letter -- the way it was worded. But it is very  
13 important to understand that the letter and the policy --  
14 the letter is from many people, the policy is from five  
15 people.

16 Q. Okay. I am going to show you, please, Exhibit  
17 276. And is that the "do drink" letter we have been  
18 talking about?

19 A. Yes, sir.

20 Q. Now, the first sentence says, "We have  
21 withdrawn the 'do not drink' usage recommendation because  
22 we have determined your water is as safe to drink as  
23 water in most cities and towns across the state and  
24 country." Is that statement true?

25 A. Yes. That was provided by DEQ. And Megan, in

1 her deposition, said that she disagreed with that  
2 statement. And I believe that to be true, that she did  
3 disagree with that statement.

4 Q. All right. Now my question is, sitting here  
5 today -- I am not asking you if DEQ provided the  
6 information. I am asking you, based on your own  
7 knowledge, sitting here today, is that a true  
8 statement?

9 A. Yes.

10 Q. The first sentence.

11 A. Yes.

12 Q. And what is your evidence that the well -- by  
13 the way, this letter went to individual well owners,  
14 correct?

15 A. Uh-huh.

16 Q. It is addressed to individual well owners?

17 A. Uh-huh.

18 Q. What is your evidence that each of these well  
19 owners' well water is as safe to drink as water in most  
20 cities and towns across the state?

21 MR. ROSSER: Objection to form.

22 MS. LeVEAUX: Objection.

23 THE WITNESS: Okay. The first point would  
24 be is that, again, if you look at vanadium -- the average  
25 level of vanadium around the country is higher than our

1 screening level of 0.3; that in studies, we give people  
2 vanadium a million times the dose every day for six weeks  
3 in diabetic studies. So we set a level of 0.3, and yet  
4 in clinical trials that are approved by IRB's -- and I  
5 have provided you with this article -- we give people a  
6 million times the dose in a pill to take to treat you.

7 So I would argue that the levels of vanadium  
8 in our water, the levels of vanadium in their water, are  
9 all safe. And that is why it is not regulated by the  
10 EPA.

11 BY MR. HOLLEMAN:

12 Q. Let's focus for a minute on hexavalent  
13 chromium. What evidence do you have today that the water  
14 in the wells of these well owners is as safe to drink as  
15 water in most cities and towns across North Carolina?

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 MR. ROSSER: Object to the form.

19 THE WITNESS: And the country.

20 BY MR. HOLLEMAN:

21 Q. I am asking North Carolina first, because that  
22 is what it says.

23 A. Again, based on our level of .07, that the --  
24 if you look at the baseline level that I am familiar with  
25 and that DEQ provided, that that level in many of the --

1 in most cities and towns is similar. Now, there is a  
2 cohort over 10 that we have now adjusted to, that we have  
3 evolved to change that. But for the other ones, I would  
4 argue that that is true.

5 Q. Well, let's look at that for a minute.

6 A. All right.

7 Q. What you did not say is that "We have  
8 determined that the water in your well has hexavalent  
9 chromium levels above our Health Screening Level." You  
10 didn't say that, did you?

11 A. Well ---

12 Q. That is not what this sentence says?

13 A. No, it doesn't say that. But, again, the  
14 argument would be that those levels of water all around  
15 the country -- I think the average level for hexavalent  
16 chromium is about .1 all around the country. So the  
17 majority of water in the country exceeds our Health  
18 Screening Level.

19 Q. Well, if most -- let me ask you this question,  
20 then. Isn't it true that the water in most cities and  
21 towns across the state has hexavalent chromium levels  
22 lower than those of people who had received this letter?

23 MS. LeVEAUX: Objection.

24 MR. ROBBINS: Objection.

25 MR. BARKLEY: Objection.

1 MR. ROSSER: Objection.

2 THE WITNESS: There are many people who had  
3 hexavalent chromiums higher than the .1, yes. Yes.

4 BY MR. HOLLEMAN:

5 Q. And would you agree that 1 part per billion of  
6 hexavalent chromium in drinking water is less safe than  
7 .07 parts per billion?

8 A. Again, I am going to come back to, you know, what I  
9 said before. I think once you start getting into these  
10 gradations of -- that you are trying to attach a level of  
11 precision -- when you say to me, "Well, Dr. Williams, if  
12 your level was .07, but the well's average was 3, and so  
13 therefore you have increased their risk of some cancer"  
14 -- I guess you are assuming stomach cancer -- "by this  
15 much, making it unsafe," I don't think you can apply that  
16 level of precision. It is not that quantitative. It is  
17 more qualitative. So ---

18 Q. Do you think -- I am sorry, finish.

19 A. I am sorry. So I think for me to say, as  
20 State Health Director, "Well, you have got a level of 2  
21 and yours is -- or yours is .2, excuse me -- or 2, and  
22 yours is .07, that that clinically makes a huge  
23 difference." I don't think we have the evidence to  
24 support that.

25 Q. Well in that case, do you think you have the

1 evidence to say that 2 is as safe as .07?

2 MS. LeVEAUX: Objection.

3 MR. ROSSER: Objection.

4 MR. ROBBINS: Objection.

5 THE WITNESS: Yes, I think that, again, as  
6 you are talking about "safe," I don't think you can say 2  
7 is that much more unsafe than .07. I don't think we have  
8 that level of expertise. Again, you are ---

9 BY MR. HOLLEMAN:

10 Q. Does anyone -- do you know any toxicologist in  
11 America who agrees with what you just said?

12 MR. ROSSER: Objection.

13 THE WITNESS: Well, I know there are 49  
14 other states that have toxicologists ---

15 BY MR. HOLLEMAN:

16 Q. No. Listen to my question.

17 MR. ROSSER: Objection.

18 BY MR. HOLLEMAN:

19 Q. What you have just said is, you cannot say --  
20 tell me if this is your statement.

21 A. Right.

22 Q. One cannot say that 2 parts per billion  
23 hexavalent chromium is less safe or riskier than .07  
24 parts per billion hexavalent chromium for cancer risk.

25 A. Right.



1 Q. Is that what you are saying?

2 MR. ROSSER: Object to the form.

3 BY MR. HOLLEMAN:

4 Q. Is that what you are saying?

5 A. What I am saying is clinically -- the key word  
6 here is "clinically" -- that if you are looking at  
7 modeling based on animal models, and you are looking at  
8 it from a scientific standpoint, that would be true.

9 Q. Okay.

10 A. If you are looking at it clinically -- if a  
11 patient came in and said, "Dr. Williams, my level of  
12 hexavalent chromium -- and I am worried about gastric  
13 cancer, which H. pylori causes 75 percent of it based on  
14 what I know. I don't want to drink my water because it  
15 is 2. And a person down the street is .06, and they are  
16 drinking their water."

17 I would say we do not have, clinically, the  
18 ability to differentiate between those two. That if we  
19 are worried about stomach cancer, that we really should  
20 be much more concerned about you H. pylori status, if  
21 that is what we are really aiming for here.

22 Q. But in terms of science and toxicology, you  
23 could say that 2 is less safe than .07?

24 MS. LeVEAUX: Objection.

25 MR. ROBBINS: Objection.

1 THE WITNESS: Yes, sir.

2 BY MR. HOLLEMAN:

3 Q. Now, when -- did you write this letter, by the  
4 way?

5 A. I -- I did the initial version. And then this  
6 letter, which is different than the policy, had input  
7 from DEQ -- numerous people in DEQ -- DPH, Legal,  
8 Communications, and probably more.

9 Q. Do you know if it was reviewed by the  
10 Governor's Office?

11 A. Yes, by the Communications Office. I don't  
12 know about the Governor's Office per se, but I kind of  
13 make a distinction -- but I know it was reviewed by the  
14 Communications Office.

15 Q. Who in the Communications Office?

16 A. Josh Ellis.

17 Q. Do you know if anyone else looked at it before  
18 it went out?

19 A. You know, I don't. I know that Josh did, and  
20 some others may have. I just wouldn't be privy to that.

21 Q. Did you talk with him about the letter before  
22 it went out?

23 A. Yes. I think that that would be a third  
24 conversation. I -- if I didn't talk to him, I talked to  
25 Kendra, who talked to him. And I just don't remember. I

1 think I did.

2 Q. And what was the substance of the  
3 conversation?

4 A. This letter was modified numerous times by --  
5 because it was coming from two departments, DEQ, DHHS.  
6 The Governor's Communications Office weighed in, DPH  
7 weighed in, DEQ weighed in. I can't remember all the  
8 different changes to the letter.

9 Q. Did Josh recommend changes to the letter?

10 A. Yes.

11 Q. And what were they -- or what was the  
12 substance of them, or the specifics of them if you  
13 remember?

14 (Witness peruses document.)

15 A. I would say the last four paragraphs look  
16 exactly like what I wrote. The first one looks like it  
17 came from DEQ.

18 Q. That is, the first paragraph?

19 A. Yes, sir. And I am -- and the second  
20 paragraph looks like it came from DEQ. When I say that,  
21 meaning they pushed it forward and it got changed. But I  
22 think the most accurate portrayal of this letter is, is  
23 that many people weighed in on it.

24 Q. And do you remember the content or the  
25 substance or the specifics of the changes that Josh had

1 made?

2 A. I don't. I -- it was a tedious process in  
3 that it would be written, it would go to DEQ. It would  
4 come back from DEQ and then it would go to the Governor's  
5 Communications Office and come back. And each time -- I  
6 don't mean to be evasive, but exactly who weighed in  
7 where, I am not sure.

8 Q. And just to be clear, do you remember the  
9 substance of any changes that came from the Governor's  
10 Office?

11 A. Well, I think part of my problem is I think  
12 some things may have been changed, but they didn't make  
13 it to the final copy of this letter, if I remember  
14 correctly.

15 Q. And what were those?

16 A. Well, I just have the sense that at some point  
17 in this letter, there were cities named. I just have  
18 this -- I just think I remember seeing some cities.

19 Q. Do you remember which ones?

20 A. For some reason, Rocky Mount weighs in my  
21 mind. I mean, I feel like I remember a version of this  
22 letter that had cities in it, and it is not there.

23 Q. But you did the first draft, is that correct?

24 A. Yes, sir. I did.

25 Q. Did you write this first paragraph or was that

1 added later by DEQ?

2 A. I think that is my sentence, but it may have  
3 been changed in some format.

4 Q. Well, the sentence that finally came out, it  
5 says, "We have withdrawn the 'do not drink' Usage  
6 Recommendation because we have determined your water is  
7 as safe to drink as water in most cities and towns across  
8 the state and country." Now, what did you do to  
9 determine what the hexavalent chromium levels were in  
10 cities and towns across -- let's start with North  
11 Carolina.

12 A. Again, to reiterate your earlier point, that  
13 language -- that data would have come from DEQ. So I may  
14 have started this sentence, but it may have changed to be  
15 finished by them. The fact that it starts very  
16 deliberately is something that I would do, "We have  
17 withdrawn the 'do not drink' recommendation," to get  
18 right to the point about what we are doing. But as I sit  
19 here under oath, I just can't remember.

20 Q. Well, I guess my question is, what did you do  
21 to determine that the well owners' water is as safe to  
22 drink as water in most cities and towns across North  
23 Carolina?

24 MS. LeVEAUX: Objection.

25 MR. ROBBINS: Objection.

1 THE WITNESS: Again, relying on DEQ for that  
2 assessment.

3 BY MR. HOLLEMAN:

4 Q. So you relied on what Mr. Reeder told you?

5 MR. ROSSER: Objection.

6 MS. LeVEAUX: Objection.

7 BY MR. HOLLEMAN:

8 Q. Is that correct?

9 A. As you look -- yes. As you look across the  
10 city and the state for -- talking about the comparison to  
11 other levels, I relied on him.

12 Q. Now did Dr. Davies object to this first  
13 sentence?

14 A. Yes, I think she did.

15 Q. And what did she say to you?

16 A. Because I think she has had the contention  
17 that some of the cities that Tom cites, she thinks the  
18 levels are different. I believe that is correct.

19 Q. And she thinks the levels are less for  
20 hexavalent chromium?

21 A. She thinks the municipal water is less than  
22 for hexavalent chromium.

23 Q. Have you checked to see if she is right?

24 A. Again, I don't remember. My sense was she  
25 wasn't talking about in aggregate. She wasn't talking

1 about all across the country, all across the state. I  
2 think to your point earlier, she was saying for some of  
3 the well owners and for some of the cities, that wouldn't  
4 be true.

5 Q. And did that raise a concern in your mind,  
6 that it wouldn't be true for some of the well owners?

7 A. Well, again, I would say that if you are  
8 talking about vanadium ----

9 Q. No, I am talking about hexavalent chromium.

10 A. I am sorry. We are talking about hexavalent  
11 chromium. I think I have answered that question, that to  
12 me, that where Megan looks at population health, and she  
13 looks at the .07 and the .15 and makes a differentiation,  
14 as a clinician looking at the qualitative view, I would  
15 just -- I would respectfully disagree with her.

16 Q. When she raised this concern with you and  
17 objected, did you then turn to look at what the actual  
18 levels were in various cities in North Carolina?

19 A. I did not. Again, I relied on DEQ.

20 Q. Since then, have you looked at the level of  
21 hexavalent chromium in Sanford, North Carolina?

22 A. Yes, I have.

23 Q. And what is it?

24 A. It is lower -- it is lower than what is in the  
25 wells.

1 Q. Okay. Have you looked at the level of  
2 contamination in Salisbury, North Carolina, for  
3 hexavalent chromium?

4 A. In the municipal water?

5 Q. Yes.

6 A. Yes.

7 Q. And what is that level?

8 A. It is lower than the adjacent wells.

9 Q. And how -- what is the level, do you remember?

10 A. I don't remember.

11 Q. Is it below your Health Screening Level?

12 A. I -- I just don't remember.

13 Q. Do you have any idea of what the level is?

14 A. No, sir. It is just lower.

15 Q. In Salisbury?

16 A. Right.

17 Q. Hold on just a minute. Let me show you what  
18 has been marked Exhibit 278. And this is the 2013  
19 Drinking Water Quality Report for the town of Salisbury's  
20 municipal water supply. Look on the back, the next to  
21 the last blue box, you will see it has reports of the  
22 hexavalent chromium levels.

23 A. Yes, sir.

24 Q. And they are all below .1, is that correct?

25 (Witness peruses document.)



1 A. You are referring here (indicating)?

2 Q. Yes, the report.

3 A. Under MRT?

4 Q. Yes.

5 A. All right. So ---

6 (Witness peruses document.)

7 Q. There is one that is .13; that is the maximum?

8 A. Right, right. That is what I was asking.

9 Q. But all the others are under .1, is that  
10 correct?

11 A. Well, there is not one for there (indicating).

12 Q. That is a non-detect.

13 A. Right.

14 Q. In other words, they didn't find any.

15 A. Right. So, if you are talking about the entry  
16 point, the answer is correct. If you are talking about  
17 MRT, it is right around .13 -- .091.

18 Q. Or .077?

19 A. Yes, sir.

20 Q. And are you aware of many of the people who  
21 received "do not drink" letters and "do drink" letters  
22 live at the Buck site, which is in Salisbury?

23 A. Yes, sir. Yes, sir.

24 Q. Do you think it would have been appropriate to  
25 inform them in the "do drink" letter of the low levels of

1 hexavalent chromium in the public drinking water supply  
2 in Salisbury?

3 MR. ROBBINS: Objection.

4 MR. ROSSER: Objection to form.

5 THE WITNESS: No, sir. Again, we were  
6 looking in aggregate. And again, for anybody who is over  
7 10, we are addressing that now by issuing "do not drink"  
8 letters, if they don't already have them.

9 BY MR. HOLLEMAN:

10 Q. But, now, the people who -- the well owner who  
11 received this letter, he or she or their family don't  
12 drink water in the aggregate, they drink it locally; is  
13 that correct?

14 A. Right, correct.

15 Q. So let me ask you again. To be most helpful  
16 and to provide the best information to the local well  
17 owner in and around the Buck site, do you believe now it  
18 would have been better to list the actual hexavalent  
19 chromium level in the Salisbury drinking water supply?

20 MS. LeVEAUX: Objection.

21 MR. ROBBINS: Objection.

22 MR. ROSSER: Objection.

23 THE WITNESS: No, sir.

24 BY MR. HOLLEMAN:

25 Q. Now, the .07 Health Screening Level -- that is

1 for a healthy adult, is that correct?

2 A. Drinking two liters a day over 70 years, yes,  
3 sir.

4 Q. So it is not for a pregnant woman or a small  
5 child, is that correct?

6 A. Well, again, I don't know that people  
7 differentiate between the levels. Again, if you look at  
8 stomach cancer, which I guess is what we are concerned  
9 about, again, the average age for somebody with stomach  
10 cancer is in their 50's or 60's. And we would be more  
11 concerned about their H. pylori status than their  
12 hexavalent chromium status, if that is what we are  
13 looking at.

14 Q. Let me ask the question again. This is not a  
15 Health Screening Level for a pregnant woman or a small  
16 child, it is for an adult exposure only; is that correct?

17 A. Correct.

18 Q. And you would expect for a pregnant woman or a  
19 small child, the Health Screening Level would be lower  
20 than .07, would you not?

21 MS. LeVEAUX: Objection.

22 MR. ROBBINS: Objection.

23 MR. ROSSER: Objection.

24 THE WITNESS: Yes, sir.

25 BY MR. HOLLEMAN:

1           Q.   Now, before you sent this letter out to  
2 families and well owners, did you determine whether any  
3 households had pregnant women or small children in them?

4           A.   No, sir. But, again, when we look at the  
5 safety, we would think that the small discrepancy in that  
6 when you look at what you are looking for. So let's take  
7 vanadium. So if we are concerned about the 0.3 in  
8 vanadium, and we are now concerned about pregnant women  
9 and small children, I do not know of any Federal or State  
10 guidance anywhere in the country that regulates the  
11 amount of vanadium in the water to 0.3.

12                   And if you look at hexavalent chromium,  
13 whether it is for small children or pregnant women, I  
14 don't know of any state in the country or the federal  
15 government that regulates hexavalent chromium for  
16 pregnant women or small children, other than California,  
17 which includes them in the level of 10. So as we look at  
18 what our peers do around the country -- and we think  
19 peers are important -- we are aligned with them. We do  
20 what they do.

21           Q.   But you had determined a Health Screening  
22 Level of .07, which is still in effect ---

23           A.   Correct.

24           Q.   --- for an adult?

25           A.   Right. For which we made a recommendation.

1           Q.    For which you have made a recommendation.  And  
2    yet you didn't consider making a new health screening  
3    determination for pregnant women or children before you  
4    sent this letter out?

5           MS. LeVEAUX:    Objection.

6           MR. ROBBINS:    Objection.

7           MR. ROSSER:    Object to the form.

8           THE WITNESS:    No.  And again, I think as we,  
9    you know, align with the other 49 states and the Federal  
10   Government who have been looking at hexavalent chromium  
11   for at least 25 years, if not intently eight years, nor  
12   have they.

13          BY MR. HOLLEMAN:

14          Q.    And you think the fact someone else hasn't  
15   done it is a reason for you not to do it?

16          MR. ROBBINS:    Objection.

17          THE WITNESS:    Absolutely.  We always look at  
18   what our peers do.  I mean, in medicine, we are defined  
19   as a similar physician in a similar community in a  
20   similar setting, what they do.  And I would argue that  
21   for toxicologists and epidemiologists and State Health  
22   Directors we do the same thing.

23                 As a matter of fact, ASTHO, the Association of  
24   State and Territorial Health Organization, came out in  
25   late March and said that as a rule, the EPA should be

1 setting all of these standards except for in emergency  
2 situations. And we support that.

3 BY MR. HOLLEMAN:

4 Q. So the standard you just recited for doctors  
5 is the one that is used in medical malpractice, is that  
6 correct?

7 A. That is absolutely correct.

8 Q. So were you using your medical malpractice  
9 experience as an expert witness when you drafted this  
10 letter?

11 MR. ROBBINS: Objection.

12 THE WITNESS: No. Again, certainly, the  
13 idea is that in any scientific endeavor, we always look  
14 at what our peers are doing. And in the United States,  
15 there are only 240 people that I know of that are held to  
16 the level of vanadium and hexavalent chromium that we  
17 hold these well owners to. So the example I often use  
18 is, like with Zika virus, is that if Tennessee tomorrow  
19 all of a sudden decides that they are going to tell all  
20 women they shouldn't get pregnant, and that they are  
21 going to say that that is their recommendation, I would  
22 hope that after six months, if nobody else is doing that,  
23 they would revisit what they had done.

24 MR. HOLLEMAN: Could we mark this as an  
25 exhibit, please?

1 (PLAINTIFF-INTERVENORS EXHIBIT 300  
2 WAS MARKED FOR IDENTIFICATION.)

3 BY MR. HOLLEMAN:

4 Q. This is Exhibit 300. What I am showing you is  
5 a document produced to us by HHS.

6 MS. LeVEAUX: Excuse me, could we get a  
7 copy?

8 MR. HOLLEMAN: Sorry.

9 BY MR. HOLLEMAN:

10 Q. Have you seen this document before?

11 A. Yes, sir.

12 Q. And what is it?

13 A. It is a Cancer Slope Curve for hexavalent  
14 chromium.

15 Q. And this was prepared by HHS?

16 A. Yes, sir.

17 Q. And the Cancer Slope Curve that was used by  
18 HHS was reviewed and approved by the U.S. Center for  
19 Disease Control, is that correct?

20 A. Yes, they --

21 MR. ROSSER: Objection.

22 THE WITNESS: --- they looked at our  
23 methodology to make sure we had done it correctly. And  
24 they said we had.

25 BY MR. HOLLEMAN:

1           Q.    And this, if you see, it recites -- it lays  
2           out that at 0.7 parts per billion, this risk increases to  
3           1 in a hundred thousand lifetime increased cancer risk;  
4           is that correct?

5                    VOICE:            Objection.

6                    THE WITNESS:    According to their modeling,  
7           yes, sir.

8                    BY MR. HOLLEMAN:

9           Q.    And at 7 parts per billion one in ten thousand  
10           lifetime cancer risk, is that right?

11           A.    According to their modeling, yes.

12           Q.    And at 70 parts per billion, one in a thousand  
13           lifetime increased cancer risk, is that right?

14           A.    Yes, sir.

15           Q.    Did you consider whether it would be  
16           appropriate to let the well owners have this information  
17           when you sent this letter out about the increased risk,  
18           as the amount of hexavalent chromium increases in their  
19           well water?

20                    MR. LeVEAUX:        Objection.

21                    MR. ROBBINS:        Objection.

22                    MR. ROSSER:        Objection.

23                    THE WITNESS:    Again, as a policy maker, it  
24           is my job to take in all of the evidence.  And as we  
25           looked at this and looked at this modeling and the



1 science it was based on, while we thought it was  
2 appropriate to tell them the risk that CAMA set at 1 in a  
3 million. And in the letters, they say, "If you have any  
4 questions, please call us if your level is higher." That  
5 -- we certainly gave them the opportunity, would have  
6 encouraged them to respond as they looked at doing things  
7 to mitigate that risk if they chose to. For some people,  
8 one in ten thousand would be something they would want to  
9 act on and filter; other people wouldn't.

10 But again, as a broad public health policy  
11 perspective, we also have a duty not to alarm the general  
12 population. And when we hear statements that your  
13 hexavalent chromium level -- we got an e-mail yesterday  
14 from Greensboro. Their level is .11 in their municipal  
15 city water supply. And they have heard it causes cancer.  
16 What do they do about getting rid of the cancer causing  
17 water in their municipal water supply? I have a duty to  
18 not unduly, inappropriately, raise alarm. And I think  
19 when we get to that level, we have done that.

20 BY MR. HOLLEMAN:

21 Q. Well, I understand you want to look at all of  
22 the evidence.

23 A. Yes, sir.

24 Q. Do you think other adult citizens of North  
25 Carolina who are drinking the water should also receive

1 all of the information so they can reach their  
2 conclusions?

3 MS. LeVEAUX: Objection.

4 MR. ROBBINS: Objection.

5 MR. ROSSER: Objection.

6 MR. BARKLEY: Objection.

7 THE WITNESS: And we are more than happy --  
8 like we said in the letter, we are more than happy to  
9 share that, when they got the letter, that said that if  
10 they had questions they could call back and -- and answer  
11 those.

12 BY MR. HOLLEMAN:

13 Q. So you would provide to a citizen or a well  
14 owner this information about the increasing risk if they  
15 asked for it?

16 A. Absolutely.

17 Q. But you relied on them to know about and ask  
18 you about a Cancer Slope and an increasing risk factor,  
19 is that right?

20 MR. ROSSER: Objection.

21 MR. ROBBINS: Objection.

22 THE WITNESS: Again, I think that one of our  
23 challenges is to educate without creating so much  
24 information that we risk raising alarm. So, again, even  
25 if somebody called me today and said, "Well Dr. Williams,

1 according to my number, I am one in a thousand," I hope  
2 that we would thoroughly explain to them -- what were  
3 they concerned about? Was it risk of cancer? What  
4 cancer are you worried about? "I don't know, you sent  
5 the letter." Well, I would say, based on our  
6 information, we would most likely think that would be  
7 stomach cancer. And that we think 75 percent of stomach  
8 cancers are caused by H. pylori. And so if we are  
9 concerned about that, let's approach it that way."

10 And then they say, "Well, if it is not that,  
11 if I am just worried about it," then we would say, "Well,  
12 according to animal modeling, we do think that this is a  
13 carcinogen in humans. You may want to do mitigating  
14 behaviors."

15 BY MR. HOLLEMAN:

16 Q. Now, looking again at the first -- oh, by the  
17 way, do you know who wrote Exhibit 300?

18 A. I do not.

19 Q. But you know it was prepared at HHS?

20 A. Well, either there or DEQ. I wasn't there  
21 when it was prepared.

22 Q. Now, when Dr. Davies -- well, let me back up  
23 for a minute. Was Dr. Davies the Acting State Health  
24 Director before you came in?

25 A. Yes.

1           Q.   Now, since you had not had any experience with  
2 toxicology or hexavalent chromium before you came to the  
3 department, when Dr. Davies expressed an objection to the  
4 very first sentence of the "do drink" letter, did you  
5 consider whether your judgment should override hers?

6           MR. ROSSER:        Objection.

7           MS. LeVEAUX:       Objection.

8           MR. ROBBINS:       Objection.

9           THE WITNESS:       Well, again, let me just  
10 explain; it wasn't just my judgment. There were a lot of  
11 people involved in that. But, you know, what I would  
12 tell you there is that California sets their Health  
13 Protective Level at .02. Their MCL is 10. That is a  
14 huge difference. What I think happened here is that when  
15 these initial letters went out a year and a half ago,  
16 that the Health Protective Level went out. And what we  
17 normally do in both situations is we take the MCL from  
18 the EPA, which has considered the practical aspects of  
19 it.

20                           What happened here is we didn't do that. We  
21 just kind of went with the .02, so to speak, from -- that  
22 you see in California, and kind of skipped the part that  
23 got to 10. So I think where we stand now is we have the  
24 Health Protective Level, just like California has .02 for  
25 people who want to look at it. What we are hoping from

1 the EPA, being aligned with ASTHO, which says you really  
2 ought to have one set of standards, is that they will  
3 come out and give us guidance on what our MCL should be  
4 -- not our Health Protective Level, but our MCL.

5 BY MR. HOLLEMAN:

6 Q. Dr. Williams, when did you become the Deputy  
7 Secretary? What was your date?

8 A. July 1<sup>st</sup>.

9 Q. July 1<sup>st</sup>?

10 A. Uh-huh.

11 Q. Before you came on July 1 to HHS, had you ever  
12 worked as a public health professional before?

13 A. I was on the Board of -- North Carolina Board  
14 of Public Health for eight years, and on the Wake County  
15 Health Department, but not had been -- was not employed,  
16 no.

17 Q. You were a citizen Board member, right?

18 A. Yes, sir.

19 Q. But you had never worked as a public health  
20 professional, is that correct?

21 A. That is correct.

22 Q. Had you ever had any experience before July 1  
23 with making any decisions concerning public drinking  
24 water supplies?

25 A. On the -- yes. We voted on the Board of

1 Public Health for eight years, all the time, on water.

2 So, yes.

3 Q. So you voted in your citizen appointment?

4 A. Yes, sir.

5 Q. As a committee member, you passed it?

6 A. Yes, sir

7 Q. But did you ever work in the field of Public  
8 Drinking Water supplies before July 1?

9 A. No, sir.

10 Q. And before July 1 of 2015, had you ever  
11 administered a government agency of any kind?

12 A. No, sir.

13 Q. And before July 1 of 2015, had you ever  
14 supervised more than 15 people?

15 A. No. But, again, worked very closely with  
16 Danny Staley, who was already there. And Danny and I  
17 worked kind of hand in glove. I have certainly -- again,  
18 as I stated before, my style of leadership is to be  
19 collaborative. And so all of these decisions have been  
20 made in consensus. The idea that I have unilaterally  
21 made decisions is not true. Danny has clearly been  
22 involved in those, as has Chris Hoke.

23 Q. Now, before you issued this "do drink" letter,  
24 had you ever issued a "do drink" letter before?

25 A. No, sir.

1 Q. Well, before this instance, had you ever been  
2 involved in making recommendations concerning  
3 contaminants in public drinking water supplies?

4 A. I had not, but Chris and Danny had clearly  
5 had. And so I certainly leaned on their expertise.

6 Q. Do you know, has the Department ever issued  
7 "do not drink" letters before?

8 A. Oh, yes, sir.

9 Q. Do you know if the Department has ever issued  
10 a "do drink" letter before, to someone who had previously  
11 received a "do not drink" letter?

12 A. I mean, certainly we send out "do not drink"  
13 letters. People correct the issue, we resample. And I  
14 don't know if we send it -- I don't know how that process  
15 works, but we tell them they can ---

16 Q. Well, have you ever sent a "do drink" letter  
17 to someone where the level of contaminant had not  
18 changed?

19 A. I don't think so. No, sir.

20 Q. Well given the fact you were new to the  
21 department, you were new to the field of public  
22 health ---

23 A. Right.

24 Q. --- you were new to the issue of hexavalent  
25 chromium, you were new to administering a public drinking

1 water related agency, did you consider whether you should  
2 pause in sending this letter out when Dr. Davies objected  
3 to the very first sentence?

4 MS. LeVEAUX: Objection.

5 MR. ROBBINS: Objection.

6 MR. ROSSER: Object to form.

7 MR. BARKLEY: Objection.

8 THE WITNESS: Well, no, because, again, just  
9 so I make it very clear, I take exception that I was the  
10 one unilaterally doing this. I mean, Danny and Chris  
11 were involved with this every step of the way, as was  
12 Megan and Mina. I took under advisement, as did Chris  
13 and Danny, their advice.

14 As I pointed out before, I make a distinction  
15 between the policy and the letter. And so if the concern  
16 is is that the letter was written by many different  
17 people or had input by many different people, and so  
18 different people's input got diminished or changed, I  
19 understand that. That is the process, when you have got  
20 a letter coming out two departments and two different  
21 levels.

22 But to me, the most important thing is the  
23 policy -- not the communication as much as the policy.  
24 The communication is important, but to me it is the  
25 science behind the policy that is important. And for



1 that I leaned very heavily on Danny and Chris.

2 BY MR. HOLLEMAN:

3 Q. Now, at the end of the day, you are the  
4 government official who signs a letter, is that correct?

5 A. Yes, that is exactly right.

6 Q. So regardless of who has reviewed it, it is  
7 your letter when you put your signature on it, is that  
8 correct?

9 A. Amen.

10 Q. And for the well owner, you didn't send him a  
11 policy memo, did you?

12 MS. LeVEAUX: Objection.

13 BY MR. HOLLEMAN:

14 Q. He got this letter?

15 A. Yes, sir.

16 Q. So as far as the well owner is concerned, the  
17 policy is the letter, is that correct?

18 MS. LeVEAUX: Objection.

19 MR. ROSSER: Objection.

20 MR. ROBBINS: Objection.

21 THE WITNESS: Well, again, I think that the  
22 last sentence says, "If you have any questions about your  
23 well water, please call us." We certainly have tried to  
24 do everything we can to avail ourselves of this. I have  
25 done 28 interviews with the media about this. You know,

1       one of our principles, as I mentioned at the beginning,  
2       is to be accountable. When I started medical school, an  
3       old country doctor told me that the important thing was I  
4       would be judged on being available, affable and my  
5       ability. And the most important was being available. So  
6       I have done everything I know to be available to people.

7                   BY MR. HOLLEMAN:

8               Q.    Are you currently available for press  
9       inquiries and questions about what happened?

10              A.    Yes. My phone number is 919/413-7791. That  
11       is my cell phone, the same on my wife uses. I am  
12       available at any time.

13              Q.    Is your staff available for press interviews?

14              A.    Yes.

15              Q.    Now, let me go back to my original question.  
16       Before you put your signature on the letter, which is  
17       what went out to the public ---

18              A.    Yes, sir.

19              Q.    --- did you consider pausing and looking at  
20       more data after Dr. Davies objected to the first  
21       sentence?

22                   MR. ROBBINS:       Objection.

23                   MS. LeVEAUX:       Objection.

24                   THE WITNESS:     No, sir.

25                   BY MR. HOLLEMAN:

1           Q.    You say in the second paragraph, "We have  
2    updated our recommendation after extensive study of how  
3    other cities, states and the Federal Government manage  
4    the elements in drinking water."

5           A.    Yes, sir.

6           Q.    Now, what study did you do?

7           A.    Well, again, we looked at the 49 other states.  
8    From the very beginning, I think Rick and I have wondered  
9    what our peers are doing in this area.  And so when we  
10   looked at the 49 other states and looked at the EPA and  
11   talked to the EPA, we found that in all of those states  
12   that have toxicologist and have medical epidemiologist  
13   and State Health Directors, but in all of those states,  
14   there had not been in that space of time a -- other  
15   states regulating these two elements.

16                    And so we felt that, based on what our peers  
17   did, and when we looked, particularly at the EPA, that  
18   they had looked at it for eight years, we felt that based  
19   on what our peers did, that warranted an updating of our  
20   recommendation.

21           Q.    When you say "we," I am asking what you did?

22           A.    Oh, what did I do?

23           Q.    Yes, what -- what study did you do?

24           A.    Well, again, I didn't do a "study" like you  
25   would do a research project.  We studied -- I looked at

1 the other states, I worked with staff, asked them to  
2 present what other states were doing.

3 Q. And which staff?

4 A. I think Danny, and I believe at one point DEQ  
5 also provided evidence in their March 1 report. They had  
6 looked at other states, and we had a draft of that. It  
7 came out in April, but I had seen that draft when we  
8 wrote this. They had been specifically asked by the  
9 legislature to specifically look at other southern states  
10 at what they did, and they provided that to us.

11 I had looked at the other states. I had asked  
12 Mina and Megan to give me exactly what other states did.  
13 And Rick had, too. And they did. And our sense was that  
14 it is a true statement that of the 315 million people in  
15 the United States, to the best of my knowledge, there are  
16 240 that are held to the levels of vanadium and  
17 hexavalent chromium that we hold people to.

18 Q. But that doesn't mean there are only 240 --  
19 that does not mean all of the people in the United States  
20 are drinking drinking water with hexavalent chromium as  
21 high ---

22 MS. LeVEAUX: Objection.

23 MR. ROBBINS: Objection.

24 MR. ROSSER: Objection.

25 BY MR. HOLLEMAN:

1 Q. --- as the hexavalent chromium in these wells,  
2 is that right?

3 MS. LeVEAUX: Objection.

4 MR. ROBBINS: Objection.

5 MR. ROSSER: Objection.

6 THE WITNESS: No, and that ---

7 BY MR. HOLLEMAN:

8 Q. Those are two totally different things, isn't  
9 it?

10 A. Right. And so ---

11 Q. Now -- go ahead. I am sorry, if you have got  
12 something else to say, go ahead.

13 A. Go ahead.

14 Q. Did you learn in the course of this that the  
15 EPA had established a Screening Level for hexavalent  
16 chromium in tap water of .035 parts per billion?

17 A. No. And in Megan's deposition I believe she  
18 said she told me that, but I have no recollection of  
19 that. And I asked Danny if he had any recollection of  
20 that, and he doesn't.

21 Q. Are you aware of that EPA Screening Level for  
22 hexavalent chromium in tap water?

23 A. No. The first time I was aware -- well,  
24 again, Megan said she made me aware of it but I have no  
25 recollection of it.

1 Q. Have you gone back to see if there is one or  
2 what it says?

3 A. I haven't had time because I got the  
4 deposition yesterday. And so that -- I have already  
5 assigned that to Danny to find out more about that.

6 Q. What did you do to prepare for your  
7 deposition?

8 A. Frank, I have done 28 interviews on this. I  
9 have immersed myself in this since the Fall. I looked  
10 mostly at my schedule -- my time line, to figure out when  
11 certain meetings were. And that is pretty much it. I --  
12 I have got ---

13 Q. Did you meet with anyone?

14 A. Lawyers. I am sorry. Yes, I met -- I met  
15 with John and Gerry.

16 Q. Other than your lawyers, did you meet with  
17 anyone?

18 A. No. Not to prepare me, no. I mean I meet  
19 with people all of the time.

20 Q. No, I mean to prepare for this deposition?

21 A. No, no.

22 Q. Did you talk with anyone else, other than your  
23 attorneys?

24 A. Well, I mean, I told people I have a  
25 deposition, and that is pretty much it.

1 Q. To prepare for it?

2 A. No.

3 Q. Do you know -- how many times, if you know,  
4 has the Secretary -- the current Secretary of HHS met  
5 with Duke and discussed the issue of the wells around the  
6 coal ash sites?

7 MR. ROSSER: Object to the form.

8 THE WITNESS: I am only aware of him meeting  
9 once. And I don't know what that meeting was all about,  
10 other than he brought back a list of groundwater  
11 standards. And, again, as I have said before, that was  
12 during a period right when he got there, he was meeting  
13 with a lot of people just for introductions. That is the  
14 only meeting I am aware of.

15 There was a phone conversation with someone.  
16 And I don't know who that was, and I don't know any of  
17 the particulars about that.

18 BY MR. HOLLEMAN:

19 Q. That was going to be my next question. Do you  
20 know if he spoke with Duke, other than at that meeting?

21 A. Well, that Thursday night he did.

22 Q. Any other conversations that you are aware of  
23 between the Secretary and Duke?

24 A. No, sir.

25 Q. Do you know if the Secretary talked with

1 Governor McCrory about the wells around drinking --  
2 around coal ash sites?

3 A. I would suspect he did, but I don't know of  
4 any individual conversations. But, I mean, you know, I  
5 try to make the -- my lines of communication are I make  
6 the Secretary aware of what we are doing, and then Matt  
7 McKillip -- I will make him aware from time to time. But  
8 I don't have any direct reporting. So the Secretary  
9 would have to tell you about the communication with the  
10 Governor's staff, other than Josh, who I have talked to  
11 once or twice.

12 Q. Did you ever review the levels of hexavalent  
13 chromium in the Raleigh drinking water supply?

14 A. I did.

15 Q. And what did you discover?

16 A. If I understand that correctly, I looked at  
17 two or three years. 75 percent of the time it was below  
18 our screening level, and 25 percent of the time it was  
19 above our screening level.

20 Q. Do you remember Mr. Reeder once saying that  
21 the water that people drink in Raleigh has similar levels  
22 of hexavalent chromium in it as is in these wells?

23 MR. ROSSER: Object to the form.

24 THE WITNESS: I remember Charlotte, I think.  
25 I think. But I don't know if I can say it about Raleigh.



1 BY MR. HOLLEMAN:

2 Q. You think he said that about Charlotte?

3 A. I think -- well, if you will go back and  
4 listen to the audio tape, I am probably jumping -- and I  
5 couldn't get a copy of it before I came here today, it is  
6 over at the General Assembly. He made the comment that  
7 these people in I think he said Belmont, were driving to  
8 places where their levels of water were lower -- or  
9 higher than what they were leaving to drink. Maybe  
10 because it is near Charlotte, I assumed Charlotte.

11 Q. Was that a true statement?

12 A. Well, for sure -- well, again, it would depend  
13 on where you are driving from and where you are driving  
14 to, I would think.

15 Q. Well, let's say you were driving to Charlotte,  
16 as you assumed. And you were driving from the Allen  
17 Community where there are wells; would that be a true  
18 statement?

19 MR. ROSSER: Object to the form.

20 BY MR. HOLLEMAN:

21 Q. Or is that a true statement?

22 A. Well, again, I think it would depend on -- as  
23 you know, there is a range of hexavalent chromium in the  
24 Charlotte water supply that is monitored, and I would  
25 think there is a range of different values for vanadium

1 and hexavalent chromium in the different wells.

2 Q. But do you know -- have you checked the  
3 Charlotte levels of hexavalent chromium?

4 A. I have.

5 Q. And what are they?

6 A. The range was, at one point, below .07. And  
7 then I think it went up to, like, .1 -- .11.

8 Q. So in general, it has been .1 or less?

9 A. Yes, sir. Yes, sir.

10 Q. And what about the wells around the Allen  
11 Station; where do they range?

12 A. Yes, it would be higher than that.

13 Q. So you know, do you not, that a suggestion  
14 that the well owners around Allen have levels that are  
15 less than that of the Charlotte water system is simply  
16 not true, is that right?

17 MR. ROSSER: Objection to form.

18 MS. LeVEAUX: Objection.

19 MR. ROBBINS: Objection.

20 THE WITNESS: If that is what he was  
21 referring to. But as I sit back and think, I don't think  
22 he -- I think I am probably over-crediting him for what  
23 he said, because I am not sure that he said -- I just  
24 have this feeling -- you will just have to listen to the  
25 audio tape.

1 BY MR. HOLLEMAN:

2 Q. Do you remember Dr. Davies telling you that  
3 Mr. Reeder had made an untrue statement in such a  
4 comparison?

5 MS. LeVEAUX: Objection.

6 MR. ROBBINS: Objection.

7 MR. BARKLEY: Objection.

8 THE WITNESS: Yes, sir. I do.

9 BY MR. HOLLEMAN:

10 Q. And what did she say to you?

11 A. Well, if I remember correctly, I believe it  
12 was during that same January 13<sup>th</sup> meeting in which he was  
13 very demonstratively saying things about the EPA and well  
14 water and ---

15 Q. This was the meeting before the Environmental  
16 Review Committee of the legislature?

17 A. On January -- which is on an audio tape, so I  
18 would encourage you to listed to it. And I remember her  
19 telling me that she did not want to contradict him in  
20 public, and he felt like -- felt like they were kind of  
21 being contentious, so to speak.

22 Q. So did you ever communicate to Mr. Reeder that  
23 what he was saying wasn't correct?

24 MR. ROSSER: Objection.

25 MS. LeVEAUX: Objection.

1 MR. ROBBINS: Objection.

2 THE WITNESS: I don't believe so, for that  
3 one setting, because I don't remember -- again, I can't  
4 remember specifically -- I just remember Megan thought  
5 that. So, again, I would listen to the audio tape. And  
6 if he said specifically Charlotte, then -- but as I  
7 remember -- I just can't remember.

8 BY MR. HOLLEMAN:

9 Q. But have you ever said to Mr. Reeder that his  
10 statement -- statements comparing -- that he has made  
11 comparing hexavalent chromium levels in well water to  
12 municipal water system hexavalent chromium levels are  
13 wrong, mistaken?

14 MR. ROSSER: Objection.

15 MR. ROBBINS: Objection.

16 THE WITNESS: Well, again, I think that --  
17 that -- I think when Tom is referring to this, he is  
18 referring in aggregate. I mean, I know when we went down  
19 to Lee County for the public forum, which was a very  
20 contentious meeting -- and that is on videotape, and you  
21 can see that one -- they took umbrage at the fact that he  
22 was making statements about other parts of the country  
23 and other cities, and couldn't speak specifically to Lee  
24 County.

25 BY MR. HOLLEMAN:

1 Q. Now, my question is what you have said to him.

2 A. Oh, I am sorry.

3 Q. So let me just be clear about that. So I am  
4 asking you have you ever indicated to Mr. Reeder that any  
5 of his statements regarding well water and municipal  
6 water and hexavalent chromium levels have been mistaken,  
7 wrong or false?

8 MS. LeVEAUX: Objection.

9 MR. ROBBINS: Objection.

10 THE WITNESS: I don't believe so, no.

11 BY MR. HOLLEMAN:

12 Q. Okay. Have you had any conversations with him  
13 where you questioned whether he should have been making  
14 those statements?

15 A. No, sir.

16 Q. So let me just make sure we are clear. When  
17 Megan -- Dr. Davies expressed the concern that -- she  
18 expressed the concern she expressed to you about what Mr.  
19 Reeder had said, did you pass that on to Mr. Reeder?

20 A. No.

21 Q. Have you read the "do not drink" letters?

22 A. Yes, sir.

23 Q. Do you know how many people got the "do drink"  
24 letters? How many well owners got the "do drink"  
25 letters?

1           A. I am sorry, say that again?

2           Q. I am sorry. Do you know how many well owners  
3 got the "do drink" letters?

4           A. Two hundred and forty, I believe, right around  
5 there.

6           Q. And do you know how many got the "don't drink"  
7 letters?

8           A. Originally?

9           Q. Yes.

10          A. I think around three hundred and fifty,  
11 somewhere up above that.

12          Q. And why is there a difference between the two?

13          A. That is a good question. Because for the  
14 other letters, they exceeded a value that didn't -- that  
15 wasn't concerning hexavalent chromium or vanadium. And  
16 so the original guidance still stands. If they -- if  
17 their IMAC or whatever level it was was such, we are  
18 maintaining the "do not drink."

19          Q. For other substances ---

20          A. Yes.

21          Q. --- other than hexavalent chromium and  
22 vanadium?

23          A. Yes. And they either have very established  
24 IMACs or MCLs.

25          Q. Now, there is also an IMAC for vanadium?

1 A. Correct.

2 Q. But you have sent "do drink" letters out based  
3 on vanadium?

4 A. Right. But one of the reasons for that is is  
5 the vanadium IMAC is changing.

6 Q. Has it changed?

7 A. Hasn't changed yet.

8 Q. And when is it going to change?

9 A. It is going through the rule making process.  
10 I don't know when that will be. But even if it hasn't  
11 changed -- for vanadium, if it hadn't changed, we would  
12 have still sent out the "do not drink" letters, because  
13 we did not have that recommendation at the February 23<sup>rd</sup>  
14 or 24<sup>th</sup> meeting. That was not information we had then.  
15 But we had when we wrote the letter, but we didn't have  
16 it when we made the decision.

17 Q. So why would you pick vanadium out of the  
18 substances that have an IMAC to tell people go ahead and  
19 drink it, even though it is above the IMAC?

20 A. Because my understanding is, for the other  
21 ones, that there are Federal Standards, there are other  
22 -- there are other people -- for vanadium, we singled it  
23 out because it has no other regulatory standard in the  
24 country that we know of.

25 Q. Is it your understanding that when the IMAC

1 was established for vanadium, it was based, in part, on  
2 health protection?

3 A. It was. And it is my understanding that they  
4 vacillated between 0.3 and 18.

5 Q. Well, regardless of that, the final decision  
6 was 0.3, is that correct?

7 A. Right, correct.

8 Q. And that currently is the IMAC for vanadium?

9 A. Yes, sir. It is.

10 Q. Now when you issued the "do drink" letter in  
11 March of 2016, were you concerned the legislature might  
12 affect your agencies jurisdiction over wells?

13 MS. LeVEAUX: Objection.

14 THE WITNESS: Correct, yes. Thank you for  
15 asking me that, because I definitely want to clear that  
16 up. There was an article in the paper that State Health  
17 Director Randall Williams feared that the legislature  
18 would take away well water; implied there was some *quid*  
19 *pro quo* that if they wouldn't do that that we would issue  
20 "do drink" letters. And that is patently incorrect, that  
21 is not true. So let me just tell you what happened.

22 So after the January 13<sup>th</sup> meeting in which  
23 Senator Rabon, for one, said "this is chaos," I went back  
24 to Danny and Chris -- I can't remember Megan or Mina --  
25 and I said -- as I was quoted in the paper saying, "This



1 is not working." I mean, we have got municipal water --  
2 and this is quoted in the newspaper. All of these things  
3 I am saying I have been saying in public. We have got  
4 municipal water, we have 6,000 new wells that we don't  
5 even check hexavalent chromium and vanadium for, we have  
6 got 2.5 million people on 900,000 old wells that we don't  
7 check hexavalent chromium and vanadium, and then we have  
8 got 240 wells that we have regulations that don't exist  
9 anywhere else in the country. And we wonder why people  
10 are confused.

11 Okay? So I said, "We have got to fix this."  
12 And so about that time -- and we were working on that --  
13 Chris got a message from Representative Catlin that said,  
14 "There is talk about the fact that the left hand doesn't  
15 know what the right hand is doing, that you have created  
16 confusion, that there are different standards, you know.  
17 You saw the January 13<sup>th</sup> meeting -- that there is a  
18 minimum [sic] among the legislature, or somebody in the  
19 legislature wants to fix that."

20 And I said, "Well, we want to fix that." So I  
21 said, "If they want -- if somebody wants to put well  
22 water back in DEQ where it was four years ago, that is  
23 fine." And Danny and Chris said no, that that would lead  
24 us to a situation like Flint, Michigan, possibly, where  
25 you had everybody in one area deciding things, and you

1 wanted to spread it out, and that they knew of things as  
2 far as the emergency need to issue emergencies for HREs  
3 and "do not drinks," that that simply was not the  
4 explanation. And the local health departments wanted  
5 water to be in DPH because they already work with DPH so  
6 much.

7 And so that they thought -- for all those  
8 reasons, they thought it was a bad idea. So I said,  
9 "Well, that is fine, but I am just telling you, what we  
10 are doing doesn't work." So Chris drafted a sentence  
11 that essentially said that we initiated the idea that to  
12 avoid this kind of situation in the future, we would use  
13 MCLs established by the EPA.

14 I called for a meeting with Representative  
15 Catlin, I guess -- or maybe we had already had the  
16 meeting, I can't remember -- and let Danny and Chris and  
17 Representative Catlin and -- you know, talk about where  
18 they were. And then we met with Mitch and Jeff and just  
19 said, "Look, we get it, that this is incredibly  
20 confusing, that having these different standards just  
21 doesn't work. We did it with CAMA because we volunteered  
22 to do it. But going forward, from hence on out down the  
23 road, we think that the State is best served by having  
24 one set of standards for water," which is what ASTHO came  
25 out and said two months later. So there was no *quid pro*

1       *quo*.

2                       Now, to Megan's deposition, could she have  
3 interpreted that that Danny or Chris were concerned? I  
4 don't doubt that. But this idea that there was this *quid*  
5 *pro quo* that we would work out a deal is just simply not  
6 true.

7                       BY MR. HOLLEMAN:

8                       Q. Well let's put aside your idea of the *quid pro*  
9 *quo* for a minute.

10                      A. Okay.

11                      Q. But were you concerned with what the  
12 legislators were threatening to do when you issued this  
13 letter?

14                      MR. ROSSER:        Objection.

15                      MR. ROBBINS:       Objection.

16                      MS. LeVEAUX:       Objection.

17                      THE WITNESS:       No. No. At -- at this point?  
18 No, this was going down the road. This was the MCLs  
19 going forward. This was -- this was ---

20                      BY MR. HOLLEMAN:

21                      Q. So did you indicate to Dr. Davies, when the  
22 "do drink" letter was issued, that one concern was that  
23 legislators might take action to affect the authority of  
24 HHS?

25                      A. I think that would have much more likely come

1 from Danny or Chris. I am not sure that it came from me,  
2 because from my standpoint -- again, I certainly  
3 understood what Danny and Chris were saying. And I  
4 respected that. But from my standpoint, if having well  
5 water in DEQ avoided this confusion, I was fine with  
6 that.

7 Q. Now, I guess going back to my question, do you  
8 remember whether or not you indicated to Dr. Davies that  
9 one reason for the March 2016 "do drink" letter was  
10 concern that legislators might restrict the authority of  
11 HHS over wells?

12 MR. ROSSER: Object to form.

13 MR. BARKLEY: Objection.

14 MR. ROBINS: Objection.

15 MS. LeVEAUX: Objection.

16 THE WITNESS: Again, I am just going to say,  
17 I don't remember the exact conversation of that meeting.  
18 If that was brought up, I don't remember bringing it up.  
19 And I would think that would have been much more likely  
20 to be from Danny or Chris, but it would not have been  
21 framed that way.

22 I remember what Danny said. And that was that  
23 he felt like that the credibility -- and that is the word  
24 he used -- of the Department was being questioned because  
25 of the levels we had set, and that the -- that the alarm

1 we had raised and the inconsistencies we had created, and  
2 that he was in favor of going forward with the MCL and  
3 the legislature. So that may have been mentioned, but  
4 that would have been more likely to come from him.

5 BY MR. HOLLEMAN:

6 Q. How did Tom Reeder learn about the "do drink"  
7 -- the idea of sending out a "do drink" letter?

8 MS. LeVEAUX: Objection.

9 THE WITNESS: Oh, I -- well, again, in  
10 numerous conversations starting in January, at which he  
11 was present -- and talks, I said, in his presence, "We  
12 are waiting for the data from DEQ. Should that level of  
13 -- that data show that this is background, based on what  
14 we know now, we would consider rescinding the "do not  
15 drinks."

16 BY MR. HOLLEMAN:

17 Q. Did you raise the rescission first or did Mr.  
18 Reeder raise it?

19 A. Oh, it was from me.

20 Q. And what was his reaction?

21 A. I don't -- I don't really remember. I mean,  
22 Tom -- I just don't remember.

23 Q. Do you remember any changes he made to your  
24 draft of the March 2016 letter?

25 A. No. I -- I couldn't speak to -- when it comes

1 to DEQ changing a letter or helping -- again, because it  
2 was our letter together. Constructing the letter -- I  
3 can't speak to any one individual, as I have probably  
4 already accounted. I -- I can't look at any one person  
5 or any one sentence in the letter and go "That was that."

6 Q. Now, did Dr. Davies object to any other  
7 sentence in the letter, apart from the first sentence?  
8 And by this, I mean the March 2016 "do drink" letter?

9 A. Well, she would have objected -- she didn't  
10 object to me -- I know she would have objected to the  
11 third paragraph. "In fact, the recommendation is based  
12 on" -- yes. Now, I don't think she told me that, but --  
13 but ---

14 Q. And what was her objection to the third  
15 paragraph?

16 A. That she does not believe in comparative risk  
17 analysis, categorically, period.

18 Q. So what part of the third paragraph would she  
19 object -- did she object to?

20 A. "In fact, the recommendation regarding one of  
21 the elements is based on a potential one in a million  
22 cancer risk for an average person consuming well water  
23 every day for more than 70 years."

24 Q. And she would have -- she objected to that  
25 sentence because?

1           A.    She would -- she does not believe that the  
2    best way to impart public health information is in  
3    comparisons.

4           Q.    And what did she recommend be said instead of  
5    that sentence.

6           A.    She just would leave that out.  And I know  
7    that from the previous letter, because we had that  
8    conversation many times.

9           Q.    Is there anything else in the March 2016 "do  
10   drink" letter that Dr. Davies objected to?

11                   (Witness peruses document.)

12           A.    Well, there is always this -- and I can't  
13   remember -- you know, I -- there has always been this  
14   tension about the last sentence in the second paragraph.  
15   "All public water systems are required to meet or exceed  
16   federal standards for safe drinking water."  If you look  
17   at the October 15<sup>th</sup> letter -- can we look at that?

18           Q.    Sure.  If I can find it, hold on just a  
19   minute.

20           A.    I think that is it.

21                   (Witness peruses document.)

22                   In the third paragraph, "While the water in  
23   your well complies with the current Federal Safe Drinking  
24   Water Act Standards, the challenge is that federal  
25   standards have not yet been developed for hexavalent

1 chromium and vanadium, the constituents in question." So  
2 I feel pretty comfortable in this room telling you that  
3 Megan would like it worded that way, and not that way  
4 (indicating).

5 Q. And so why does the "do drink" letter not tell  
6 people that there is no Federal Safe Drinking Water  
7 Standard for hexavalent chromium or vanadium?

8 MR. ROSSER: Object to the form.

9 MS. LeVEAUX: Objection.

10 MR. ROBBINS: Objection.

11 BY MR. HOLLEMAN:

12 Q. Why was that not in the March 2016 letter?

13 MS. LeVEAUX: Objection.

14 MR. ROBBINS: Objection.

15 THE WITNESS: And we have been criticized  
16 for that. You know, to me, the fact that -- at least for  
17 vanadium, the fact that there is no standard, that that  
18 sentence is fine. Because the fact that there is no  
19 standard to me implies that they do not think there is a  
20 level at which they need to regulate it, looking at water  
21 supplies all across the country. And in fact, 49 other  
22 states all tend to agree with that. That is for  
23 vanadium.

24 For hexavalent chromium, I think that, again,  
25 it is back to that idea that when you look at chromium,



1       that the EPA says we are going to use a standard of 100  
2       for total chromium, that people within DHHS -- which  
3       would include Megan and Mina and Ken -- disagree, and  
4       would say that hexavalent chromium is different.

5               And so we await guidance from the EPA in  
6       December, which is going to hopefully clarify that  
7       debate. And we also think that at the low levels we are  
8       talking about, under 10, that if you, you know, look at  
9       them and they are not 50 and they are not 100, then at  
10       that -- that we can live with that statement.

11               BY MR. HOLLEMAN:

12              Q.   Now, the October 15, 2015, letter did advise  
13       people that there were no such Federal Standards,  
14       correct?

15              A.   Right.

16              Q.   So did anyone -- when this letter was being  
17       written, did anyone suggest that the same information be  
18       provided the well owners in the "do drink" letter?

19              A.   You know, I don't think -- maybe I am -- I  
20       mean, I don't know the -- I mean -- I don't know that  
21       that was intentional. I mean, I think, clearly, that  
22       sentence reflects more coming from DEQ, and the October  
23       15<sup>th</sup> sentence probably reflects more coming from DHHS, if  
24       I could explain it.

25              You know, one thing, Frank, I try to explain

1 to people is, is that, you know, we have had some  
2 criticism that the left hand doesn't know what the right  
3 hand is doing. But I would argue that unlike Flint,  
4 Michigan, we have been -- I mean, Danny and Tom and Megan  
5 had semi-weekly phone calls every Wednesday and Friday  
6 for, I think, weeks, if not months. So some of this just  
7 reflects that debate within the country on this issue.  
8 It is not that the left hand doesn't know what the right  
9 hand is doing; it is just that they genuinely  
10 respectfully professionally disagree.

11 Q. Well, this really isn't -- what we are talking  
12 about now isn't a debate; it is a fact that there is no  
13 Federal Safe Drinking Water Standard for vanadium, and  
14 that there is not one for hexavalent chromium. Isn't  
15 that correct?

16 MR. ROSSER: Objection.

17 THE WITNESS: No, I mean, again, DEQ's  
18 position would be that there is for hexavalent chromium,  
19 because it is considered under the 100 of chromium.

20 BY MR. HOLLEMAN:

21 Q. Do you agree with that?

22 A. Well, again, I think that is what makes this  
23 so complex. And I think I told you earlier that if you  
24 -- you asked me -- if you took that to its logical  
25 conclusion, that a hexavalent chromium level of 100 met

1 the Federal Drinking Water Supply, that I don't think  
2 that is a good thing. So if you took it by the strict  
3 nuance -- now, if you look at our levels, none of them  
4 approach 50 or 75 or 100. But I do think, as we have  
5 evolved in this, we have gone back and looked. And  
6 because of that, we are addressing those people over 10  
7 and putting them in a separate camp.

8 Q. But -- so does that mean you do not agree with  
9 DEQ's position?

10 A. If DEQ's position means that if we had levels  
11 of 100 out there, the answer would be I don't agree with  
12 that position.

13 Q. And do you believe that this letter would have  
14 been a better and more informative letter if it had  
15 included the information from the October 2015 letter,  
16 that there were no -- that there are no Federal Standards  
17 for vanadium or hexavalent chromium?

18 MR. ROBBINS: Objection.

19 MS. LeVEAUX: Objection.

20 MR. ROSSER: Objection.

21 MR. BARKLEY: Objection.

22 THE WITNESS: Again -- I think, again,  
23 trying to reach some consensus, I think that certainly,  
24 you know, if you had elaborated on that, I wouldn't have  
25 a problem with that. "All public water systems are

1 required to meet or exceed Federal Standards for safe  
2 drinking water." And, you know, one of the complexities  
3 is, is that for hexavalent chromium and vanadium we have  
4 had to -- I would have to sit down and think how to think  
5 about it, so ---

6 BY MR. HOLLEMAN:

7 Q. But is it your view that the letter would have  
8 been more informative and more complete had that  
9 information been included?

10 MR. ROSSER: Objection.

11 THE WITNESS: To be honest with you, Frank,  
12 I could go with either one. I think my preference would  
13 be the October 15<sup>th</sup>, but I can live with the -- that  
14 there.

15 BY MR. HOLLEMAN:

16 Q. So you know -- and you know the EPA has under  
17 consideration a separate safe drinking water standard for  
18 hexavalent chromium, is that correct?

19 A. Absolutely.

20 MR. ROSSER: Frank, it is 11:00, and as I  
21 stated when you started, that Duke would like an  
22 opportunity to ask questions of Dr. Williams as well. He  
23 has been on the record for three hours now. I believe he  
24 has got two and a half hours left, so we would request  
25 that you wrap up soon.

1                   MR. HOLLEMAN:   Well, I am going to finish my  
2                   questions.  We noticed the deposition, you did not.  You  
3                   will have a chance to ask questions.

4                   MR. ROSSER:           How much longer do you think  
5                   you have?

6                   MR. HOLLEMAN:   I will just see how long it  
7                   takes.  I don't have any idea.  It depends in large part  
8                   on how the witness answers the question.

9                   MR. ROSSER:           Well, again, we would just  
10                  note our objection for the record.  And I am going to  
11                  continue to note that objection until this deposition is  
12                  concluded.  Dr. Williams, is it correct you have to leave  
13                  at 1:30?

14                  THE WITNESS:       Yes, but I don't eat lunch, so  
15                  we are good.  I can go through.

16                  MR. BARKLEY:       Do you need a break, though?

17                  THE WITNESS:       No.

18                  MR. HOLLEMAN:   You can have a break any -- I  
19                  should have said this at the beginning.  Anytime you want  
20                  a break, let us know.

21                  THE WITNESS:       Thank you very much, but I am  
22                  fine.

23                  BY MR. HOLLEMAN:

24                  Q.   Do you know if Dr. Rudo objected to the "do  
25                  drink" letter being issued?

1           A.    I do not.

2           Q.    Have you talked with Dr. Rudo about the "do  
3 drink" letter?

4           A.    I have not.

5           Q.    Have you talked to him about the preceding  
6 policy that you discussed concerning the "do drink"  
7 letter?

8           A.    Yes -- no.  I talked to him back in the Fall  
9 about -- I mean, to me, this has been an evolution, as I  
10 think I have mentioned.  And so I talked to him back in  
11 October, September, somewhere around there.

12          Q.    And what was the conversation?

13          A.    It was a good one.  I wanted Ken to come brief  
14 me because one of the things as Secretary I had talked  
15 about doing in the very beginning was convening a  
16 conference, trying to get experts from around the  
17 country.  So I asked Ken to come in.

18                And he was very helpful.  He gave me a  
19 tremendous amount of material to read, which I did.  And  
20 he was in favor of a conference, bringing in people.  But  
21 we asked Megan and Mina to work that up, and they  
22 provided us a schedule and a cost.  And it just became  
23 apparent that the EPA had been looking at this for eight  
24 years, that for us to convene a group of experts who were  
25 just going to come in and for half a day, walk out of the

1 room, and all agree and -- it just -- it just wasn't  
2 feasible. But he was in charge -- he was in favor of it,  
3 and it just wasn't practical.

4 Q. Did you have any discussions with him about  
5 the hexavalent chromium issue, other than the discussion  
6 about the conference?

7 A. It was a pretty long meeting. I think we  
8 talked about it, but I don't really remember the  
9 conversation, other than that he was helpful.

10 Q. At that time, were you considering rescinding  
11 the "do not drink" letters?

12 A. You know, I don't remember, Frank, because --  
13 my sense is no, because I think this was before the  
14 October 15<sup>th</sup> letter, I think. But I could be wrong. I  
15 mean, one of the first things Rick said was -- and we met  
16 him in August -- was, "What about getting a conference  
17 together?" So I think that meeting was in September.

18 Q. Did you have any other discussions with Dr.  
19 Rudo relating to the -- the "do not drink" letters or the  
20 wells?

21 A. No, sir.

22 Q. In your conversations with him, did he  
23 indicate whether he thought the .07 parts per billion  
24 Health Screening Level was appropriate?

25 A. I -- we didn't discuss it, I don't think. I

1 mean, I -- I think that -- just to reiterate, I hope that  
2 this has come out in this deposition, is that the  
3 methodology, the process used to arrive at the .07 and  
4 the 0.3, has -- we think is valid.

5 Q. Have you met with Secretary van der Vaart  
6 about the "do drink" letters?

7 A. I have met with Secretary van der Vaart, but  
8 not about the "do drink" letters.

9 Q. What about the hexavalent chromium issue in  
10 these wells?

11 A. Gosh. The two times I remember meeting with  
12 Secretary van der Vaart was, one, around an interview.  
13 And he was just in the room. Because it was Tom and me  
14 were interviewing with a TV station. And he just  
15 happened to be there. I think he was waiting for  
16 everybody to leave, so -- they had a meeting. So I  
17 remember that, but we didn't -- I mean, that was about  
18 well water, but I don't remember him -- we didn't discuss  
19 it.

20 And then there was another meeting at some  
21 point, sometime I think back in the Fall -- yes, back in  
22 the Fall, where Rick was meeting him, I think. I think  
23 we went over just to meet him. But I don't think we  
24 discussed well water then.

25 Q. So you have no memory of a meeting with him



1 where this topic of well water around coal ash sites came  
2 up?

3 A. The only time -- when we did the interview on  
4 TV, I remember he was over there in the corner listening  
5 to the interview.

6 Q. But that is all you remember?

7 A. Yes.

8 Q. You mentioned that there are other wells in  
9 North Carolina that aren't tested for hexavalent  
10 chromium?

11 A. Yes, sir.

12 Q. Have you considered recommending that they do  
13 be tested for hexavalent chromium?

14 A. No, sir.

15 Q. Do you agree that hexavalent chromium, at some  
16 level, is a health risk to people?

17 A. Yes, sir.

18 Q. So have you considered why not -- why would  
19 not recommend having wells tested for a substance that  
20 can be a health risk?

21 A. Right. Well, first of all, at the levels  
22 that we would be -- you know, if you look at the levels  
23 that, you know, came out of Athens, I mean, those levels  
24 tended to be pretty high -- 50, 40 as a rule. I think it  
25 went up 134. And again ASTHO has said -- our

1 professional 100,000 health professionals, all 50 State  
2 Health Directors have said that, really, the EPA should  
3 be deciding who -- what is tested for and what the levels  
4 should be. And we agree with that statement.

5 Q. Do you think the health of people in North  
6 Carolina should wait on what the EPA does?

7 MS. LeVEAUX: Objection.

8 MR. ROBBINS: Objection.

9 MR. ROSSER: Objection.

10 MR. BARKLEY: Objection.

11 THE WITNESS: Well, again, I just think that  
12 there are certain thing that -- whether it be national  
13 defense or other things, that the Federal Government --  
14 that when we -- except for in emergency situations, and  
15 kind of unique situations, we probably all are better  
16 served by having one regulating agency. They have 15,000  
17 employees. We don't have that many concentrating on  
18 this.

19 BY MR. HOLLEMAN:

20 Q. Well, I guess you know that the 15,000 people  
21 who work at the EPA do not all work on hexavalent  
22 chromium? You are aware of that?

23 A. Correct.

24 Q. And they certainly all don't work on well  
25 water, either, is that correct?

1           A.   No, but, I mean, if you look at the scope of  
2           their agency that is, you know, concerned with that --  
3           and I think California petitioned them to look at this,  
4           so it is certainly on their radar.

5           Q.   So is it your position that the Federal  
6           Government should be the regulating authority over all  
7           private wells and municipal drinking water supplies in  
8           the state of North Carolina?

9           MR. ROSSER:        Objection.

10          MR. ROBBINS:       Objection.

11          THE WITNESS:       I think when you look at  
12          ASTHO's statement, they think that we would be best  
13          served that if -- unless there are emergency unique  
14          situations, which happen, that we would be served by the  
15          EPA having one consistent set of standards.  And I agree  
16          with ASTHO.

17          BY MR. HOLLEMAN:

18          Q.   So it is your position that the Federal  
19          Government should be the authority for determining what  
20          water quality standards for the municipal systems and  
21          private drinking water wells in the state of North  
22          Carolina ---

23          A.   (Interposing) Well, first of all ---

24          Q.   --- is that correct?

25          A.   No.  First of all, I want to get back to the

1 point that in DHHS we do not regulate municipal water.

2 Okay?

3 Q. And I am saying that -- all right. Well,  
4 let's just limit this to wells.

5 A. Okay, okay. So let me just make that real --  
6 I don't want to go there again.

7 Q. Well, let's limit that to well water. And let  
8 me restate the question, then. Is it your position,  
9 then, that the Federal Government should be the governing  
10 authority of water quality in private drinking water  
11 wells in the state of North Carolina?

12 A. No. My position would be is that we would  
13 best be served if the Federal Government -- the EPA,  
14 according to the ASTHO statement, set the MCLs for those  
15 constituents which are widely present; that the state  
16 should reserve the right to monitor those that arise in  
17 emergent unique situations for private wells, and that,  
18 in fact, the assessment of those is perfectly a state  
19 function. It is the consistency of standards that I  
20 seek, not the consistency of administering.

21 Q. And do you think that the people of North  
22 Carolina and their health should wait for the Federal  
23 Government to take action ---

24 MS. LeVEAUX: Objection.

25 MR. ROBBINS: Objection.

1 MR. ROSSER: Objection.

2 MR. BARKLEY: Objection.

3 BY MR. HOLLEMAN:

4 Q. --- before action is taken?

5 MR. ROBBINS: Objection.

6 THE WITNESS: No, I am not saying that at  
7 all. What I am trying to say is that as we look at our  
8 peers, which is something that we do in science, we  
9 understand that 49 other states and the Federal  
10 Government have different standards than we do, and that  
11 makes us look at our standards as we do in everything as  
12 scientist.

13 BY MR. HOLLEMAN:

14 Q. Do you know that Duke personnel don't drink  
15 the well water at Buck?

16 MR. ROSSER: Objection.

17 MR. ROBBINS: Objection.

18 MR. BARKLEY: Objection.

19 MS. LeVEAUX: Objection.

20 BY MR. HOLLEMAN:

21 Q. Did you know that?

22 A. No, sir.

23 Q. Do you have notes of your meeting in February?

24 A. No.

25 Q. Do you have notes of any of your conversations

1 or meeting regarding the wells around coal ash sites?

2 A. I don't keep notes. I mean, no, I don't. I  
3 just don't keep notes. When I was a physician, I had a  
4 chart. And as it is now, I don't make notes.

5 Q. Do you have any other record, either by  
6 dictation or anything else?

7 A. Yes, that is what I am trying -- that is what  
8 I am -- I am trying to be honest with you. I would think  
9 -- I possibly, for instance -- when you say "records,"  
10 what might be helpful to you is I may have a rough draft  
11 of my letter that I would certainly be willing to provide  
12 you. That might be on my computer. But that would be  
13 the only kind of stuff I would have, I think.

14 Q. What about dictation notes? I mean, in other  
15 words, do you dictate?

16 A. No, I never dictate.

17 Q. And do you have all of the drafts of the "do  
18 drink" letter?

19 A. I think so. I mean, I might, I think. I  
20 mean, I am happy to give you -- I mean, all of my e-mails  
21 are public record. Everything I have is public record,  
22 so I am happy to provide you anything that I have that I  
23 think would apply to your question.

24 Q. Does the impact of hexavalent chromium on a  
25 person's health vary depending upon the source of the

1 hexavalent chromium?

2 A. I don't believe so.

3 Q. So if it is background hexavalent chromium or  
4 chromium from coal ash, the impact of hexavalent chromium  
5 on a person's health is the same ---

6 MR. ROSSER: Objection.

7 BY MR. HOLLEMAN:

8 Q. --- is that right?

9 MR. ROSSER: Objection.

10 MR. ROBBINS: Objection.

11 MR. BARKLEY: Objection.

12 THE WITNESS: From our standpoint, yes. I  
13 mean, the -- and that is part of our issue is that people  
14 extrapolate from our level in a well and apply it to the  
15 Greensboro water supply.

16 BY MR. HOLLEMAN:

17 Q. If I could show you Exhibit 296, it is headed  
18 "A Report of Cancer Incident Rates in North Carolina  
19 Counties with Coal Ash Storage Facilities."

20 (Witness peruses document.)

21 A. Yes, sir.

22 Q. Have you ever seen this?

23 A. Yes, sir.

24 Q. Did you know -- when did you first learn about  
25 it?

1           A. I can't remember, Frank. I have seen it. And  
2 for some reason I have reviewed it recently, in the last  
3 month or so.

4           Q. Were you consulted before it was done?

5           A. It -- yes. This is the one Rick requested, I  
6 think?

7           Q. You need to tell me that, then.

8           A. Yes, I am sorry. Yes, I apologize. Yes, I  
9 see -- Rick requested this from Megan and Mina and --  
10 August 27<sup>th</sup>. So that was at a -- after that first  
11 meeting.

12          Q. And did you discuss this with the Secretary?

13          A. Yes.

14          Q. And what did you -- what was your  
15 conversation?

16          A. Well, you know, Megan's concern as an  
17 epidemiologist was that when you try to do these  
18 ecological cluster studies, which is the same as the one  
19 from Athens from which people extrapolate that you can  
20 get liver cancer from hexavalent chromium, that these are  
21 really difficult to do to prove anything. And, in fact,  
22 when we did this and looked at the counties in question,  
23 there was no increased risk of stomach cancer. But she  
24 was skeptical that it would shed much light on what we  
25 were trying to look at.



1 Q. And do you agree with her skepticism?

2 A. Yes, sir.

3 Q. So would you agree that this study doesn't  
4 tell you one way or the other whether people who are  
5 drinking from well waters -- well water around coal ash  
6 sites do or don't have a higher incidence of cancer?

7 MR. ROSSER: Objection.

8 THE WITNESS: Again, I would give it very,  
9 very little credence.

10 BY MR. HOLLEMAN:

11 Q. And this was previously marked Exhibit 293.  
12 Have you ever seen this study before, called "Chromium-6  
13 in U.S. Tap Water"?

14 A. I do not believe so.

15 Q. So no one has ever provided that to you, to  
16 your knowledge?

17 (Witness peruses document.)

18 A. I don't believe so. No, because I would  
19 remember this map on page 8.

20 Q. Let me show you what has been marked Exhibit  
21 286. And this is a document entitled "Risk Explanation:  
22 Frequently Asked Questions." Have you ever seen that  
23 before?

24 (Witness peruses document.)

25 A. Many times.

1 Q. Did you play any role in drafting it?

2 A. No, sir.

3 Q. Do you know who did?

4 A. My understand was DEQ and DHHS.

5 Q. Have you ever raised any questions about the  
6 accuracy of the content of it?

7 A. No, sir.

8 Q. Have you ever had any concerns about the  
9 accuracy of the content of it?

10 (Witness peruses document.)

11 A. No, sir.

12 Q. If you would look at page 4 of that, please.

13 A. Okay.

14 Q. Do you see that chart of the cities that are  
15 listed?

16 A. Yes, sir.

17 Q. Do you know why they were chosen?

18 A. No, sir.

19 Q. Have you ever asked anyone why these  
20 particular cities were listed?

21 A. No, sir. This was done before I was here.

22 Q. Are there plans to send out any more "do  
23 drink" letters?

24 A. Well, at this point, as I have mentioned  
25 before, we have stopped communication except, for those

1 people with chromium or hexavalent chromium levels over  
2 10. And we are doing that by personal communication. We  
3 are calling them. And that should be ongoing as we are  
4 speaking of it.

5 Our dilemma, Frank, with the others is there  
6 is active legislation which would change, possibly, what  
7 we would write -- send out. So we just feel -- I know  
8 you believe in "more information is better," but we just  
9 feel like to send a letter now and then send another  
10 letter in possibly five weeks would just be confusing.

11 Q. Where does that legislation stand in the  
12 legislature, do you know?

13 A. I do not know.

14 Q. Do you know if it has any material chance of  
15 passing?

16 A. I do not know.

17 Q. Do you think HHS should determine its  
18 communication with the public based on the fact a bill  
19 has been introduced in the legislature?

20 MS. LeVEAUX: Objection.

21 MR. ROBBINS: Objection.

22 MR. BARKLEY: Objection.

23 THE WITNESS: Well, again, I just hope you  
24 would be sensitive that I think to send another letter  
25 now and the possibly -- and I don't know the chance of

1 that -- sending another letter in a month would just  
2 really frustrate people and confuse them.

3 BY MR. HOLLEMAN:

4 Q. But they would have more information, is that  
5 correct?

6 A. Yes, sir.

7 Q. Is there any consideration to changing the  
8 Health Screening Level for vanadium [sic] from .07 to  
9 anything else?

10 A. I am sorry, you said .07. Do you mean for  
11 hexavalent chromium?

12 Q. Let me start over. Is there any consideration  
13 of changing the Health Screening Level for hexavalent  
14 chromium of .07 parts per billion?

15 A. Not that I am aware of.

16 Q. I gather you have read Dr. Davies' deposition?

17 A. Yes, sir.

18 Q. And you have laid out some disagreements with  
19 it.

20 A. Yes, sir.

21 Q. Do you have any other disagreements with her  
22 deposition that I have not asked you about, or you have  
23 not expressed?

24 A. Thank you.

25 (Pause.)

1 I think I touched on it, but she did say in  
2 the deposition that Danny Staley disagreed with the "do  
3 drink" letter, and that, at that meeting, is incorrect.  
4 That is was correct earlier, as it was for me, but not at  
5 that meeting which was the pivotal meeting.

6 Q. Anything else?

7 A. I don't believe so.

8 Q. And have you read Dr. Shehee's deposition?

9 A. Yesterday.

10 Q. And was there anything in that you disagreed  
11 with?

12 A. There may be -- she may have conflated one  
13 meeting with another. And I just don't know, because we  
14 had a meeting on the 23<sup>rd</sup> to establish the policy. And  
15 there may -- I just don't know answer to this -- there  
16 may have been another meeting in which we tried to write  
17 a letter. But I just -- I don't know that. But that  
18 would be the only question I would raise.

19 Q. And that is, she -- Dr. Shehee testified she  
20 objected to the "do drink" letter, is that correct?

21 A. Yes, but not at the -- at the 23<sup>rd</sup> letter [sic]  
22 -- I mean, at the 23<sup>rd</sup> meeting she did not.

23 Q. And do you believe her objection was stated in  
24 a meeting when the letter was being written?

25 A. No, I -- no. I think -- I am wondering if she

1 is not conflating or confusing that -- the first time  
2 that I knew that Dr. Shehee had the concerns she  
3 expressed in the deposition is when she expressed it  
4 about the form -- not the policy but the form. So, I  
5 just -- I do not have a recollection of her saying she  
6 was against the letter. And she certainly didn't at that  
7 meeting, according to two other people. But she clearly  
8 -- to the form -- told me to my face that she objected to  
9 the form.

10 MR. HOLLEMAN: Okay. Let me check with my  
11 colleagues. I may have a few more questions and I will  
12 try to finish. Thank you.

13 THE WITNESS: Thanks, Frank. You have been  
14 very patient.

15 MR. HOLLEMAN: Thank you.

16 MR. HOLLEMAN: OFF THE RECORD. 11:24 A.M.

17 (A BRIEF RECESS WAS TAKEN.)

18 MR. HOLLEMAN: ON THE RECORD. 11:35 A.M.

19 BY MR. HOLLEMAN:

20 Q. Dr. Williams, you said that you all were  
21 planning to contact all the well owners who had 10 parts  
22 per billion of chromium or more in their well water.  
23 When did you decide to do that?

24 A. Late last week.

25 Q. So, like, Thursday or Friday of last week?

1           A.    No -- Wednesday, Thursday, Friday.  I don't  
2   remember when.

3           Q.    And why?  Why then?

4           A.    Yes.  Because it came to my attention that the  
5   groundwater standard for chromium was 10.  And so our  
6   thought had been that for hexavalent chromium and  
7   vanadium that we would not issue the "do not drinks."  
8   But if you followed the logic that we had been following,  
9   which was if you can say that all chromium is equal to  
10   hexavalent chromium, then we had now exceeded this level  
11   of 10 that was in our Groundwater Standard.  And we  
12   hadn't -- we hadn't changed anything for total chromium,  
13   which can equal -- supposedly all hexavalent chromium, so  
14   we just felt like that was the appropriate thing to do.

15          Q.    Who initiated this change?

16          A.    That was me.

17          Q.    All right.  Did anyone call you to suggest you  
18   make a change?

19          A.    Oh, I am sorry.  I take that back.  Yes.  We  
20   had an inquiry from a reporter who was asking us about  
21   that.  And then that was brought to my attention.  I  
22   became aware from staff of the 10 for chromium under the  
23   Groundwater Standard, and then I initiated it.

24          Q.    Which reporter?

25          A.    I think it was Tyler Dukes.

1 Q. Did you talk with the Governor or his staff  
2 about this change?

3 A. No.

4 Q. Did you talk with anyone at Duke about the  
5 change?

6 A. No.

7 Q. Did you talk with anyone at DEQ?

8 A. No.

9 Q. But this proposal came up after Dr. Davies'  
10 deposition was made public, is that correct?

11 A. No, I think it -- wasn't her -- didn't -- when  
12 did -- her deposition became public Thursday night or  
13 something, I think? Thursday afternoon? This was before  
14 that.

15 Q. But it was after her deposition was taken?

16 A. No, I think -- I think we reached that  
17 decision before -- oh, it was after it was taken, yes.

18 Q. Yes.

19 A. But not before it became public.

20 Q. And have those people been contacted yet?

21 A. They are -- I talked to Danny last night and  
22 this morning. Hopefully, that is happening today.

23 Q. So today is when it was -- they are a going to  
24 be notified?

25 A. Well, I hoped it would have been -- I talked



1 about this last week. And I was hoping it was going to  
2 be Monday, but Danny was up in the mountains -- Cherokee,  
3 or one of our counties up there. So I talked to him last  
4 night and talked to him this morning.

5 Q. You mentioned there was another letter you  
6 were going to send out, and you were holding it back?

7 A. Right.

8 Q. Has that been drafted?

9 MR. ROSSER: Objection.

10 THE WITNESS: No.

11 BY MR. HOLLEMAN:

12 Q. And what does the letter -- what will the  
13 letter say, do you know?

14 A. Well, the letter will say, if nothing changes,  
15 that for your 94 you exceeded an MCL or a Federally  
16 recognized standard or an IMAC that we have established,  
17 and so you will continue not to drink your water.

18 Q. That is for hexavalent chromium?

19 A. No, no, no, no. This is for things other than  
20 hexavalent chromium or vanadium.

21 Q. Oh, okay.

22 A. This is for ---

23 Q. Anything?

24 A. --- anything. If the legislation passes that  
25 says we can only use MCLs, many of these are IMACs. And

1 we couldn't do that anymore. So in that case, they could  
2 drink their water. So that is why we are trying to work  
3 through that process.

4 Q. The 10 parts per billion standard that you are  
5 adopting?

6 A. Yes, sir. Right.

7 Q. Are you aware that that was developed by North  
8 Carolina without taking into account the cancer risk of  
9 hexavalent chromium?

10 MS. LeVEAUX: Objection.

11 MR. ROSSER: Objection.

12 MR. ROBBINS: Objection.

13 MR. BARKLEY: Objection.

14 THE WITNESS: No, sir.

15 BY MR. HOLLEMAN:

16 Q. Do you know, one way or the other?

17 MS. LeVEAUX: Same objection.

18 MR. ROBBINS: Objection.

19 THE WITNESS: I don't know.

20 BY MR. HOLLEMAN:

21 Q. Have you checked to see what was the basis for  
22 the 10 parts per billion standard?

23 A. No, sir.

24 Q. And then, how -- the reporter, I guess, told  
25 you -- his inquiry told you it existed, is that right?

1           A.    Well, let me back up a little bit.  Let's see.  
2    If we could go to Exhibit 286 ---

3           Q.    And those are the Frequently Asked Questions,  
4    is that right?

5           A.    Yes, 286.  I had seen it before right there  
6    (indicating).  I knew the standard for chromium was 10.  
7    I had seen that.

8           Q.    Right.

9           A.    What his inquiry led us to process is, if  
10   people have been saying that all the chromium can be  
11   considered to be hexavalent chromium, and that you are  
12   considering now a chromium level of 10 -- hexavalent  
13   chromium level of 10 equals a chromium level of 10, and  
14   it is in the IMAC for chromium that it is 10, then we  
15   felt like to be logical and to be to be consistent, we  
16   ought to include those people with hexavalent chromium  
17   levels over 10 as if they were total chromium levels over  
18   10.

19          Q.    If you discovered that the 10 parts per  
20   billion standard was developed without taking into  
21   account the carcinogenic nature of hexavalent chromium,  
22   will that lead you to consider a lower level than 10  
23   parts per billion?

24                   MS. LeVEAUX:    Objection.

25                   MR. ROSSER:     Objection.

1 MR. ROBBINS: Objection.

2 MR. BARKLEY: Objection.

3 THE WITNESS: For total chromium?

4 BY MR. HOLLEMAN:

5 Q. Yes -- no, for hexavalent chromium?

6 A. No, at this point we are not changing our HRE  
7 for hexavalent chromium. It is .07.

8 Q. I am sorry, I didn't state my question well.  
9 I believe you are going to, as I understand it, inform  
10 people who have 10 parts per billion of hexavalent  
11 chromium or more in their wells that they should not  
12 drink their water?

13 A. That is correct.

14 Q. Now, if you were to discover that that level  
15 of 10 parts per billion for total chromium was developed  
16 without taking into account the cancer causing nature of  
17 hexavalent chromium, would that lead you to consider a  
18 lower number than 10 parts per billion for rescinding the  
19 "do drink" letter?

20 MS. LeVEAUX: Objection.

21 MR. ROSSER: Objection.

22 MR. ROBBINS: Objection.

23 MR. BARKLEY: Objection.

24 THE WITNESS: At this point, I know of no  
25 plans to change the HRE for hexavalent chromium. And I

1 know of no plans to change the recommendations for total  
2 chromium, which is 10. Because that is the IMAC, as I  
3 understand it, and we have to go by the IMAC.

4 BY MR. HOLLEMAN:

5 Q. You mentioned about delay in the EPA putting  
6 in place a hexavalent chromium standard. Are you aware  
7 that part of the reason for that delay is industry  
8 objections in Washington by the trade associations?

9 MS. LeVEAUX: Objection.

10 MR. ROSSER: Objection.

11 MR. ROBBINS: Objection.

12 THE WITNESS: No, sir.

13 BY MR. HOLLEMAN:

14 Q. You mentioned earlier that in unique  
15 situations or emergencies, the state should be in a  
16 position to set different water quality standards. What  
17 do you mean by "unique" or "emergency situations"?

18 A. Well, the situation would be, as it was  
19 explained to me by people who know more about it than me,  
20 there are situations where things get spilled into water  
21 -- I mean, chemical spills, for which there is no MCL,  
22 there is no Federal level. And so that Danny and Chris  
23 were very strongly [sic] that the state would need to  
24 reserve the right to say, "Okay, you spilled substance  
25 'x' in here. Don't drink the water."

1 Q. I think you mentioned that California is a  
2 state, along with North Carolina, that has a hexavalent  
3 chromium Health Screening Level?

4 A. Yes, sir.

5 Q. Are you aware that California is also a state  
6 that has had significant issues with hexavalent chromium,  
7 including the Erin Brockovich situation?

8 A. Yes, sir.

9 Q. And now North Carolina is a state that has had  
10 a situation with hexavalent chromium, too, correct?

11 MS. LeVEAUX: Objection.

12 MR. ROSSER: Objection.

13 MR. ROBBINS: Objection.

14 THE WITNESS: Well, I -- no, I wouldn't  
15 agree with that statement. I think we were asked to look  
16 at it, but I don't think you can compare North Carolina  
17 to the situation out there with Brockovich.

18 BY MR. HOLLEMAN:

19 Q. Do you know the level of hexavalent chromium  
20 in the wells in the Erin Brockovich situation?

21 MS. LeVEAUX: Objection.

22 THE WITNESS: Frank, I think I have seen  
23 that, because I read up on it, but I don't remember them  
24 offhand.

25 BY MR. HOLLEMAN:

1 Q. Do you know if the levels of the hexavalent  
2 chromium in the North Carolina wells around coal ash  
3 sites is comparable to or greater than some of the Erin  
4 Brockovich wells?

5 MS. LeVEAUX: Objection.

6 MR. ROSSER: Objection, move to strike.

7 MR. ROBBINS: Objection.

8 MR. BARKLEY: Objection.

9 THE WITNESS: I do not know.

10 BY MR. HOLLEMAN:

11 Q. I believe you indicated there was a meeting  
12 when the letter was actually written; is that true?

13 A. Well, again, as I talked to Danny this morning  
14 and last night, I think -- we have lots of meetings and  
15 so we have a recollection of a meeting in which Mina was  
16 dictating on a computer. And she talks about that in her  
17 deposition. And the problem is, is that Megan thinks she  
18 was at that meeting, and Megan was in Atlanta on the 23<sup>rd</sup>  
19 meeting. So I need to go back and check my calendar just  
20 to see if, after the -- after the 29<sup>th</sup>, there was another  
21 meeting in which we all sat down and tried to write a  
22 letter.

23 Q. At the writing the letter meeting ---

24 A. (Interposing) If there was ---

25 Q. --- did Dr. Shehee object to the "do drink"

1 letter then?

2 A. No.

3 Q. Did Dr. Davies?

4 A. No.

5 Q. I believe you said -- as you indicated, you  
6 all are now contacting those who have more than 10 parts  
7 per billion hexavalent chromium, and you are waiting for  
8 the legislature to act before you send another letter  
9 out, correct?

10 A. To the 94 people.

11 Q. To the 94?

12 A. Yes, sir.

13 Q. Well, in light of those changes, do you think  
14 the March 2016 "do drink" letter was premature?

15 A. No, sir.

16 Q. Do you remember when you told the staff --  
17 that is, Dr. Davies and Dr. Shehee -- that you were going  
18 to send a "do drink" letter -- actually send a letter?

19 A. I would think -- the letter went out the 11<sup>th</sup>.  
20 I think I started working on it probably that Tuesday or  
21 Wednesday, March 1<sup>st</sup> or 2<sup>nd</sup>. I just -- I don't remember  
22 having a conversation telling them.

23 Q. Did Dr. Davies or Dr. Shehee object to the  
24 letter after they knew an actual letter was being sent  
25 out, but before it was sent out?



1           A. No. The -- their only objection that I knew  
2 of before the deposition was the -- clearly, I would  
3 agree that everybody at some point in January or before  
4 then was waiting for data. I said that numerous times in  
5 public forums. But I vividly remember talking with Mina  
6 and then Megan after the letter went out saying, "Well,  
7 we need to get those forms out." And they were, like,  
8 "What forms?" And I said "Well, the forms, you know,  
9 that we are going to put on -- that are going to be  
10 similar."

11                   And Megan just said, "No, I think that will  
12 confuse people and make them think that we are  
13 scientifically not standing by our HREs. And I don't  
14 think we should do that." And I talked with Megan [sic]  
15 and she said that. And so I didn't do it.

16           Q. You said someone -- and I forget, Robin  
17 something -- reached out to you about this position?

18           A. Cummings, uh-huh.

19           Q. And why?

20           A. I think because -- two reasons. One, I had --  
21 when Laura Gerald had left as the State Health Director  
22 in 2012, I think, they had asked me if I would be willing  
23 to do the position. And I said no. I had three thousand  
24 patients. And then when Penny left in February of 2015,  
25 who was the State -- Robin was Acting Health Director --

1 Acting State Health Director. Then Leah Devlin, who was  
2 a mentor of mine, was a State Health Director for eight  
3 years, contacted me and asked me would I be willing to  
4 consider it. And I said, "Well I had looked at it, I  
5 think, two years before." And she said, "Would you be  
6 willing -- they have made overtures to me to see if you  
7 would like to do it." And I said "Sure, I will go talk  
8 to them."

9 Q. And who is "they"?

10 A. Robin Cummings.

11 Q. And what were your qualifications for the  
12 position?

13 A. Again, I was an M.D. And for State Health  
14 Director, you have to be a Medical Doctor. For Deputy  
15 Secretary, it was my years of clinical experience. I had  
16 been on the State Board of Health for eight years. I had  
17 been at a local level on the local health department. If  
18 you look at -- only about 10 percent of M.D.s in the  
19 United States who are involved with public health have a  
20 Master's of Public Health. The vast majority don't who  
21 work in that space.

22 Q. Do you think the "do drink" letter should have  
23 informed each well owner what the level of risk was for  
24 their well?

25 MS. LeVEAUX: Objection.

1 MR. ROBBINS: Objection.

2 THE WITNESS: No.

3 BY MR. HOLLEMAN:

4 Q. I think you have said there was an  
5 inconsistency between DEQ and HHS over the issue of  
6 hexavalent chromium in wells. What -- can you tell us  
7 what the inconsistency was?

8 A. Yes, sir. I believe there is just an  
9 intellectual debate between DEQ, who feels that it is --  
10 that chromium represents hexavalent chromium at a level  
11 of 100, and that they believe fervently that that is a  
12 Federal EPA Standard -- it is on the EPA web site, and  
13 that when they say, "This meets all the standards," they  
14 truly believe that.

15 I think there is a feeling among some people  
16 in DHHS --- and much of this debate occurred before I got  
17 there -- that hexavalent chromium is different. It is an  
18 in valent state. It shifts, it is dynamic, and that they  
19 would be more comfortable with just -- I mean hexavalent  
20 chromium. The EPA is going to weigh in on that in  
21 December from the IRIS Study -- the health risk -- and  
22 that will be very welcome.

23 Q. One thing. When you were talking about well  
24 owners, you talked of them being held to a standard.

25 A. Right.

1           Q.   Now, really, hexavalent chromium at .07 is a  
2   Usage Recommendation, it is not a binding regulation?  It  
3   is informative to the well owner, is that correct?

4           A.   That is a great point, Frank.  And what I  
5   think happened as an unintended consequence is, is when I  
6   talked to staff trying to figure out exactly how this  
7   happened, what they will tell you is is that what they  
8   predicated their thinking was that they issue HREs all  
9   the time with recommendations, and that those -- people  
10  mitigate them, they change them, and it goes on.

11           They will tell you that what they didn't see  
12  coming was the word "cancer."  That when the word  
13  "cancer" got introduced -- because you have got to  
14  remember, almost everything else we regulate doesn't have  
15  the word "cancer" to it.  It might be lead, it might be  
16  arsenic, it might have been -- an arsenic can cause  
17  cancer.  But they would say that is what ended up making  
18  this very different, because people almost never ---

19           Q.   But it is still not a standard.

20           A.   It is not a standard.

21           Q.   And it is not a regulatory requirement, is  
22  that correct?

23           A.   But it has almost *de facto* -- it is not a  
24  regulatory requirement, and it is a recommendation, but  
25  it *de facto* became one because of the word "cancer."

1 Q. But would you agree people should be concerned  
2 about a carcinogen in their water?

3 MR. ROSSER: Objection.

4 MR. ROBBINS: Objection.

5 MR. BARKLEY: Objection.

6 THE WITNESS: Well, again, as we talked  
7 about before, I think that the whole question becomes the  
8 proportionality of response versus the degree of risk,  
9 based on what we know.

10 BY MR. HOLLEMAN:

11 Q. That is up to each individual to make that  
12 decision, correct?

13 MS. LeVEAUX: Objection.

14 THE WITNESS: Well, again, I think that we  
15 are not changing the HRE. So, yes, if they choose to  
16 understand that -- on modeling, there is a one in a  
17 million, and I certainly would respect that.

18 BY MR. HOLLEMAN:

19 Q. And the more information they have, the better  
20 decision they can make; is that true?

21 MR. ROSSER: Objection.

22 MR. ROBBINS: Objection.

23 MR. BARKLEY: Objection.

24 THE WITNESS: Well, again, I just find that  
25 sometimes in our zeal to impart information, we can do --

1       psychologically, we can affect people in a way that I  
2       don't think is good for them.

3                   BY MR. HOLLEMAN:

4               Q.    So you think it would be better to withhold  
5       information?

6                   MR. ROBBINS:       Objection.

7                   MR. BARKLEY:       Objection.

8                   THE WITNESS:     Well, no.  I can just tell you  
9       clinically that -- the example I use is that sometimes in  
10      talking about risk factors, for instance, we had another  
11      case -- I will just give you the example -- with ocular  
12      melanoma, where we informed a person whose daughter had  
13      died of ocular melanoma -- and you look at the risk  
14      factors.  And other than welding, it only happens two  
15      thousand times in the United States a year.  It tends to  
16      be people in their 50s.  And down in Huntersville, North  
17      Carolina, we have had three or two young ladies in their  
18      20s die who went to a particular high school.

19                   We sent out a letter.  And one of the risk  
20      factors that is incredibly soft is tanning beds.  One of  
21      the young women had used a tanning bed, I think, once.  
22      And we sent a letter to them telling them that we thought  
23      the risk of tanning bed was associated with ocular  
24      melanoma.  And, basically, the woman interpreted it that  
25      that is what had killed her daughter.

1 I went down to Charlotte. I ran the 5K in  
2 race. I did a three hour public forum. And that woman  
3 -- it is on TV -- said, "How dare you insinuate that that  
4 tanning bed" -- I think she used it once. But because  
5 we had that in a risk factor sheet -- ocular melanoma --  
6 we told her that. And so I think we -- I wish we hadn't  
7 done that. So I think sometimes, in our zeal to get  
8 information, we give too much.

9 MR. HOLLEMAN: No more questions.

10 THE WITNESS: Thank you, Frank.

11 MS. LeVEAUX: I just have two short  
12 questions Brent, if you don't mind?

13 MR. ROSSER: Sure.

14 C R O S S - E X A M I A T I O N 11:55 A.M.

15 BY MS. LeVEAUX:

16 Q. How are you, Dr. Williams? My name is Anita  
17 LeVeaux. And I represent the Department of Environmental  
18 Quality. And I am here with Mr. Drew Hargrove, who is  
19 with the Department of Environmental Quality as an  
20 attorney.

21 And just two short questions. You said that  
22 DHHS was awaiting background information from DEQ. And  
23 this information was to come from Duke, and you were  
24 later only to find that DEQ had the information. Once  
25 you spoke with your Secretary or with Tom Reeder, did you

1       come to the understanding that DEQ, as a regulatory body,  
2       had an obligation and a duty to review the information  
3       that was tendered by Duke before it came to any  
4       conclusions that it was, in fact, background information?

5             A.    That was made very clear to me.

6             Q.    And is it further your understanding that they  
7       continue with this review?

8             A.    Yes, ma'am.

9             MS. LeVEAUX:    Thank you.

10            MR. ROSSER:     All right.  Can we take a  
11       couple of minutes and just switch?

12            MR. HOLLEMAN:    Sure.

13            MR. ROSSER:     OFF THE RECORD.           11:56 A.M.

14            (A BRIEF RECESS WAS TAKEN.)

15            MR. ROSSER:     ON THE RECORD.           11:59 A.M.

16            D I R E C T   E X A M I N A T I O N 11:59 A.M.

17            BY MR. ROSSER:

18            Q.    All right.  Dr. Williams, we met briefly  
19       before today.  My name is Brent Rosser.  I am with Hunton  
20       and Williams, representing Duke Energy.  You have been on  
21       the record for about four hours now.  We have go about an  
22       hour and a half left, as I understand it.  I will try to  
23       get through all of my questions.  If for some reason we  
24       don't we may leave this open and come back and talk to  
25       you again, but we can talk about that at the end of this



1 deposition.

2 Dr. Williams, you testified quite a bit about  
3 the February 23<sup>rd</sup>, 2015 meeting, is that right?

4 A. Yes, sir.

5 Q. And just for the record, who was present  
6 during that meeting?

7 A. Danny Staley, Chris Hoke, Mina Shehee and  
8 Megan Davies by phone.

9 Q. By phone. She was in Atlanta at the time, as  
10 I recall?

11 A. Yes, sir.

12 Q. And this was -- this meeting was held in  
13 connection with the decision to issue the "do drink"  
14 letters, correct?

15 A. I had called that meeting to discuss it.

16 Q. And I think you testified earlier that no one  
17 at that meeting, at the time, expressed any objection to  
18 the issuance of the "do drink" letters, is that right?

19 A. Correct.

20 Q. All right. So if a news report stated that  
21 there was disagreement about the decision to issue these  
22 "do drink" letters at that meeting, that would be  
23 inaccurate; is that right?

24 A. Well, yes, in that -- but, you know, there are  
25 all sorts of degrees of level of support. And I don't

1 want to infer that -- that I thought that everybody at  
2 that meeting was equally as enthusiastic. Does that make  
3 sense?

4 But just verbally, at that meeting, no one  
5 said to me, "We do not support not drinking -- these  
6 letters." So I think when you talk about consensus, I  
7 think that I certainly knew that Mina and Megan had  
8 opinions on this. And I think, you know, Megan said she  
9 was conflicted. So I don't want to -- I don't want to  
10 impart anything other than when I asked, "Is everybody  
11 okay with this? Everybody is on board with this," that  
12 nobody objected.

13 Q. So I guess -- let me ask that more  
14 specifically. At this February 23<sup>rd</sup> meeting, if news  
15 reports were published that Dr. Davies or Dr. Shehee  
16 objected to the decision to rescind the "do not drink"  
17 letters, that would be inaccurate?

18 A. That would be incorrect according to three  
19 people who have a recollection of that meeting, even  
20 before Megan's deposition. Because it came up during a  
21 question one time from a reporter. And I said to Danny  
22 and Chris -- and this was before any of this -- I said,  
23 "I didn't miss anything, did I, when I used the word  
24 'consensus,' is that correct?" And they said "Yes,  
25 sure."

1 Q. So you testified earlier that private wells  
2 are not tested for hexavalent chromium, is that right?

3 A. The 6,000 new wells we check, and the 2.5  
4 million people on the 900,000 wells we do not check.

5 Q. And so there is about 900,000 private wells in  
6 North Carolina?

7 A. Yes, sir.

8 Q. And they have never been required to be  
9 checked for hexavalent chromium or vanadium, correct?

10 A. No, sir.

11 Q. Are new wells required to be checked for  
12 hexavalent chromium?

13 A. No, sir.

14 Q. What about vanadium?

15 A. No, sir.

16 Q. How many other states have standards for  
17 hexavalent chromium?

18 A. One.

19 Q. And that is California, is that right?

20 A. Yes, sir.

21 Q. And what is that level?

22 A. Ten micrograms per liter.

23 Q. So ten parts per billion, essentially?

24 A. Yes, sir.

25 Q. Has California been issuing "do not drink"

1 letters to its residents for exceedances of that level?

2 A. I do not know.

3 Q. Are you aware that they have been issuing "do  
4 not drink" letters for exceedances of that level?

5 A. I do not know.

6 Q. As far as you know, is North Carolina the only  
7 state in the country that has issued "do not drink"  
8 letters for exceedances for hexavalent chromium and  
9 vanadium levels?

10 A. I would believe that to be true.

11 Q. Are you aware of studies showing hexavalent  
12 chromium levels in excess of .07 parts per billion  
13 outside of North Carolina?

14 A. Yes.

15 Q. And I believe this was marked as 293.

16 (Witness peruses document.)

17 You were shown this study earlier today,  
18 correct?

19 A. Yes.

20 Q. And if you would turn to page 10, do you see  
21 there it shows various levels of hexavalent chromium in  
22 cities throughout the country, correct?

23 A. Yes.

24 Q. And starting with New Haven, Connecticut up to  
25 Norman, Oklahoma, those are all cities that would have

1 levels in excess of .07 parts per billion for hexavalent  
2 chromium, correct?

3 A. Yes, sir.

4 Q. And that would include Syracuse, New York?

5 A. Yes, sir.

6 Q. Louisville, Kentucky?

7 A. Yes, sir.

8 Q. Sacramento, California?

9 A. Yes.

10 Q. Milwaukee?

11 A. Yes.

12 Q. Chicago, Illinois?

13 A. Yes.

14 Q. Washington, D.C.?

15 A. Yes.

16 Q. Phoenix, Arizona?

17 A. Yes.

18 Q. Los Angeles, California?

19 A. Yes.

20 Q. Atlanta, Georgia?

21 A. Yes.

22 Q. Salt Lake City, Utah?

23 A. Yes.

24 Q. Pittsburgh, Pennsylvania?

25 A. Yes.

1 Q. Albuquerque, New Mexico?

2 A. Yes.

3 Q. San Jose, California?

4 A. Yes.

5 Q. Honolulu, Hawaii?

6 A. Yes.

7 Q. So under North Carolina's Screening Level for  
8 hexavalent chromium, .07, isn't it true that all of the  
9 residents in these major cities would receive "do not  
10 drink" letters if you apply that .07 standard?

11 A. Well, again, we don't regulate municipal  
12 water. So we don't issue -- so, again, that -- municipal  
13 water is covered by DEQ.

14 Q. Okay. Assuming you would regulate municipal  
15 water supplies ---

16 A. Right.

17 Q. --- would the .07 Screening Level result in  
18 "do not drink" letters issued to all of these major  
19 cities throughout the country?

20 MS. BLAKE: Objection.

21 THE WITNESS: Yes.

22 BY MR. ROSSER:

23 Q. And that would presumably include millions and  
24 millions of people in each of those cities drinking city  
25 water?

1 MR. TORREY: Objection.

2 THE WITNESS: Yes.

3 BY MR. ROSSER:

4 Q. Just talk about, from a public health  
5 perspective, what impact would the issuance of "do not  
6 drink" letters in cities like Atlanta and Los Angeles and  
7 Chicago have on the public?

8 A. Well, I think it would be multifold. One  
9 would clearly be psychological. People would have been  
10 drinking this water for a long time and so they would  
11 probably just hear that it increases the risk of cancer,  
12 so that everybody who had cancer or a loved one who had  
13 cancer, would go -- or many people would go, "I wonder if  
14 it was that water?"

15 And you might not ever hear what particular  
16 cancers we were talking about. Because, again, in our  
17 initial letter back a year and a half ago, we never said  
18 what cancer, we just said cancer. So there would be that  
19 concern.

20 Second of all, if we issued as  
21 recommendations, then many people would feel compelled to  
22 mitigate that. And that would require different ways to  
23 do it. But those can vary from, I think, \$1,000 to  
24 \$3,000. And then I suspect it would involve a fair  
25 amount of pressure on cities to somehow mitigate it

1       systemically, as well. And that is why we often see  
2       differences between Health Protective Levels, like .02 in  
3       California, and MCLs, which are 10.

4             Q.    So if -- I mean, would it create any public  
5       safety issues if everybody in Atlanta who was on city  
6       water was told not to drink their water?

7             A.    Yes.

8             Q.    In what way?

9             A.    Well, again, they would have to find  
10       alternative sources of water, and that would create  
11       problems. If they quit drinking water and started  
12       drinking other things, there is a good chance a lot of  
13       those would have sugar in them, and then that is not  
14       good. And it would lead to the whole issue of just --  
15       you have to have drinking water, of course. You know,  
16       "Where are we going go get that water? How are you going  
17       to transport it in? Where is it going to come from?"

18            Q.    How would you get that water?

19            A.    You would have to either build pipelines or  
20       truck it in. And that involves risk.

21            Q.    And time?

22            A.    And time.

23            Q.    And so these "do not drink" letters would not  
24       only apply to residents on city water, it would apply to  
25       businesses as well, correct?



1 MR. TORREY: Objection.

2 THE WITNESS: I mean, again, in your  
3 hypothetical, because we don't regulate municipal  
4 water ---

5 BY MR. ROSSER:

6 Q. Right.

7 A. --- but if everybody was regulated, it would  
8 apply to everybody who drank the water.

9 Q. So that would be businesses, churches?

10 A. Airports.

11 Q. Schools?

12 MR. TORREY: Objection.

13 THE WITNESS: Schools.

14 BY MR. ROSSER:

15 Q. Hospitals?

16 MR. TORREY: Objection.

17 THE WITNESS: Yes.

18 BY MR. ROSSER:

19 Q. Restaurants?

20 A. Yes, sir.

21 Q. Government buildings?

22 A. Yes, sir.

23 Q. Police stations?

24 A. Yes, sir.

25 Q. Fire stations?

1 A. Yes, sir.

2 Q. If you would, turn to the "Frequently Asked  
3 Questions" document you were showed earlier.

4 VOICE: 286

5 BY MR. ROSSER:

6 Q. If you could turn to page 4.

7 (Witness peruses document.)

8 Do you see that chart there that shows  
9 Charlotte, Greensboro and Raleigh?

10 A. Yes, sir.

11 Q. And there are -- you agree there that they are  
12 all -- they do show levels above the .07 hex chrom  
13 Screening Level, is that right?

14 A. Yes, sir.

15 Q. So, again, assuming that you have jurisdiction  
16 over public city water supplies, those cities would also  
17 be subject to "do not drink" letters, is that right?

18 A. Yes, sir.

19 Q. So, again, under the current Screening Levels,  
20 that would result in millions of people in North Carolina  
21 receiving "do not drink" recommendations, is that right?

22 A. Yes, sir.

23 Q. So from a public health perspective, does it  
24 make sense to treat those drinking private well water  
25 differently from those drinking city water and issuing

1 drinking recommendations?

2 A. Well, again, I think that there are issues  
3 that come into play there, Is that with municipal water  
4 you have an opportunity more to regulate or test it. I  
5 mean, there would be more frequent testing than there is  
6 with well water. And so I think, you know, that is one  
7 of the first things.

8 You probably have easier access to treat it  
9 than you do 900,000 wells. So I think those are  
10 different. And those would be -- but, to your point, I  
11 think that what we have learned here is that most people  
12 think water is water. And if you have a level for one  
13 and you don't have a level for the other, they find that  
14 very confusing and frustrating. And to the point Frank  
15 asked earlier, if the level is one here and it is one  
16 there, then they would tend to think they ought to be  
17 held to the same standard.

18 Q. And so from a public health perspective, why  
19 -- I mean, why does it make sense to treat those  
20 separately?

21 A. Well, you mean ---

22 Q. Because if I am drinking water at .1, from a  
23 private well, and then somebody sitting beside of me is  
24 also drinking water from city water at .1, I have been  
25 told do not drink, but the guy sitting next to me has not

1       been told not to drink.

2             A.    Right, right.  And it doesn't make sense.  And  
3       that is why for -- you know, usually, in our usual course  
4       of business, we use the Federal MCLs to set our standards  
5       in wells to avoid that very problem.  And that is why  
6       ASTHO says that that is a good policy to follow, to avoid  
7       that conflicting advice.

8             Q.    From a public health perspective, does it make  
9       sense to treat those drinking from private wells near  
10      coal ash impoundments differently than those drinking  
11      from private wells further away from ash impoundments?

12            MR. TORREY:        Objection.

13            THE WITNESS:       Well, again, we got introduced  
14      to this -- remember, we normally don't check old wells,  
15      we just do new wells.  And we don't check either one for  
16      hexavalent chromium or vanadium.  We volunteer, as part  
17      of CAMA, at DEQ's request, because -- and we thought that  
18      was a good idea to have two different agencies looking at  
19      this, unlike Flint, Michigan.  Of course, Flint hadn't  
20      happened then.

21                    And so I think that essentially what happened  
22      is we stepped into a space in which there were no MCLs,  
23      and we created an HRE.  And I think as the year has  
24      evolved, we have seen that those two are very different.

25            BY MR. ROSSER:

1           Q.    So CAMA made the distinction between those who  
2           live close to ash impoundments, and private well owners  
3           who do not live close to private well owners [sic],  
4           correct?

5           A.    Uh-huh, uh-huh.

6           Q.    And so this, from a public health perspective  
7           -- strictly public health perspective, does that make any  
8           sense to you?  Because if I am living -- again, if I am  
9           living in a county that doesn't have an ash impoundment,  
10          and I am a private well owner, from a private well owner  
11          who lives close to an impoundment, why should I be  
12          treated any differently from a public health perspective?

13          A.    Well, again, I think because, in the  
14          beginning, there was a concern that there was a plume  
15          that was contaminating those wells.  So this was a  
16          response to what we call a point source, that there was a  
17          concern that this was a contaminant going into those  
18          wells.

19          Q.    And so I guess what I would be asking is, then  
20          -- and you talked about the Haley and Aldrich study,  
21          correct?

22          A.    Right, right.

23          Q.    And based upon your review of that study, you  
24          determined that this is all background, right?

25                MS. BLAKE:            Objection.

1                   THE WITNESS:     I read that report once,  
2     thinking I was going to have a whole lot of time to read  
3     over it.  I was asked to not use that information in  
4     making any decisions or -- so as I have testified under  
5     oath, under a brief review -- "brief" meaning a couple of  
6     hours, but it was a very long report -- that was my  
7     assessment of what the report said.

8                   But as it has been brought out in this  
9     deposition, it has not been vetted by DEQ.  And so I am  
10    totally on board with -- I can tell you what I thought,  
11    but would not give validity to that because it hasn't  
12    been vetted.

13                  BY MR. ROSSER:

14                  Q.   And who did you talk to about the H&A report  
15    -- the Haley and Aldrich report?  Was it ---

16                  A.   (Interposing) Two people.  One was Josh Ellis  
17    that I spoke to who imparted that to me.  And then I  
18    spoke with the Secretary, who talked to -- Secretary van  
19    der Vaart and he said the same thing.  Do not factor that  
20    in.  Don't use it, don't -- it is unvetted.

21                  Q.   You testified that someone agreed with you  
22    that -- at least on your initial assessment, that this  
23    was all background levels, is that right?

24                  A.   Danny Staley, who was a local Health Director  
25    and is Head of the Division of Public Health, and has

1       been in this space all his life, really, when I called  
2       him asking him to read it, his quote was, "It is all  
3       background." And that was literally the first words out  
4       of his mouth.

5               Q.    In issuing the "do not drink" letters, do you  
6       believe HHS fully considered the potential confusion that  
7       would result from those?

8               A.    From the initial letters?

9               Q.    Right.

10              A.    Brent, I think what happened is that they were  
11       very committed to following the process the way they  
12       always did it. This was a unique situation. I think, in  
13       retrospect, that what they had found out -- what we have  
14       found out is, is that because of the word "cancer" --  
15       because we just don't see this type of response with  
16       vanadium, and because we issued, basically, an HRE, when  
17       around the country there is either a healthy debate about  
18       one of those constituents or those are MCLs that we *de*  
19       *facto* kind of created a regulation when we issued that  
20       "do not drink" letter.

21                       And when I asked them about that, they go,  
22       "Well, we have never had this before when we sent  
23       recommendations. People just fixed it." And they have  
24       learned this was -- they applied what they normally did  
25       to a unique situation. And that created issues.

1           Q.    Since HHS issued the "do not drink" letters,  
2           are you aware of any other of the 49 states issuing their  
3           own "do not drink" letters?

4           A.    No.

5           Q.    Since HHS issued the "do not drink" letters,  
6           have any of the other 49 states contacted you and  
7           indicated that they plan to issue "do not drink" letters?

8           A.    Not to my knowledge, no.

9           Q.    Has EPA contacted you to let you know that  
10          they supported the decision to issue the "do not drink"  
11          letters?

12          A.    No.  I contacted them to find out what they  
13          are going to do about hexavalent chromium versus  
14          chromium, but they haven't contacted me.

15          Q.    Have any of the other 49 other states  
16          contacted you to indicate that it was a good idea to  
17          issue the "do not drink" letters?

18          A.    No.  Contrary, ASTHO released a statement in  
19          March, independent of all this, I guess, saying that  
20          their policy statement on water is that the EPA should be  
21          strongly encouraged to set all MCLs.

22          Q.    Would it be helpful for HHS to test old wells  
23          throughout the state to know whether these levels are  
24          background?

25                   MR. TORREY:           Objection.



1 THE WITNESS: You know, at this point, my  
2 understanding is other people are doing that.

3 BY MR. ROSSER:

4 Q. Would it be helpful to require this of new  
5 wells?

6 MR. TORREY: Objection.

7 THE WITNESS: Again, I would -- don't think  
8 I have the specific expertise to comment on that.

9 BY MR. ROSSER:

10 Q. Are you aware of any instance where a "do not  
11 drink" letter was based upon an HRE that is not based  
12 upon an IMAC or an MCL?

13 A. Well, with hexavalent chromium, the Cancer  
14 Slope Curve. But are there any others? I am not aware  
15 of any.

16 Q. Is vanadium known to cause cancer?

17 A. Again, I have seen an allusion to breast  
18 cancer, but I cannot find anything to substantiate that.

19 Q. Other than what you just stated, is vanadium  
20 known to cause cancer, in your opinion?

21 A. No.

22 Q. How many other states have screening levels  
23 for vanadium?

24 A. None that I know of.

25 Q. How many other states have standards for

1 vanadium?

2 A. Minimal. And, again, I am trying to remember  
3 back. Brent, the reason I am -- you know, can't answer  
4 that too quickly is that different states express it  
5 different ways. And so I -- you know, in the April 1  
6 report from DEQ, it seems like Alabama had some level for  
7 something. But -- but it is clearly nothing near 0.3.

8 Q. Let me show you a document here, Exhibit 301.

9 (DEFENDANT EXHIBIT 301 WAS  
10 MARKED FOR IDENTIFICATION.)

11 MS. LeVEAUX: Brent, do you have an extra  
12 copy of that?

13 MR. ROSSER: I don't of that one, I am  
14 sorry.

15 BY MR. ROSSER:

16 Q. If you would turn to page 15. Well, first of  
17 all, have you seen this presentation before?

18 A. Yes. Well, I don't know if I have seen --  
19 this isn't the report, is it? This is just ---

20 Q. Let me ask you, have you seen the document  
21 before?

22 A. Yes, yes. This was presented on January 13<sup>th</sup>.  
23 I was at that meeting. Yes, I have seen it.

24 Q. And if you look on page 15 ---

25 (Witness peruses document.)

1 A. Yes.

2 Q. --- that is various states in the Southeast,  
3 correct?

4 A. Right.

5 Q. And so if you look at Alabama, your reference  
6 is 3.6?

7 A. That is what I remember, the number.

8 Q. And then you have Florida at 49 parts per  
9 billion, right?

10 A. Right.

11 Q. And then Virginia at 86 parts per billion?

12 A. Right.

13 Q. Which is significantly higher than the .3  
14 parts per billion of North Carolina, correct?

15 (Pause.)

16 A. Yes. I am sorry, yes. I apologize.

17 Q. And I think you have testified earlier today  
18 that the daily intakes of vanadium in food can range from  
19 10 to 20 parts per billion per day, is that right?

20 A. Yes, sir.

21 Q. And nationally, the average vanadium  
22 concentrations in tap water are about 1 part per billion,  
23 correct?

24 A. Yes, sir. That is correct.

25 Q. If you would just turn back to that document

1 on page 14 ---

2 (Witness peruses document.)

3 --- have you seen that chart or this diagram  
4 before?

5 A. Yes, sir. I have.

6 Q. And it indicates that for at least the red and  
7 yellow portions of the state, that vanadium levels would  
8 be in excess of the .3 parts per billion for vanadium,  
9 correct?

10 A. Yes, sir.

11 Q. So what -- what cities would fall within the  
12 yellow or red range for vanadium on this chart?

13 A. Well, I remember Winston-Salem very clearly.  
14 I am looking at the map. Let's see -- get my geography  
15 straight.

16 (Witness peruses document.)

17 Perhaps Gaston County -- is that right? And  
18 Cleveland County. And it looks like -- you are talking  
19 about yellow, too?

20 Q. Yellow at .5.

21 A. Yellow at .5. You have your western counties.  
22 I mean -- so you have got Mitchell and McDowell and it  
23 looks like Rutherford, I think, if my geography is  
24 correct, and probably parts of Buncombe and Watauga, it  
25 looks like.

1 Q. So, again, any residents with private wells  
2 within these red or yellow sections would exceed the  
3 levels of .3 parts per billion for vanadium, correct?

4 A. Yes, sir.

5 Q. And would have received a "do not drink"  
6 letter, correct?

7 A. If we checked their well, yes, sir. And we  
8 had about 18, as I remember, for vanadium only, and about  
9 16 to 20 for hexavalent chromium only, and the rest were  
10 both.

11 Q. Are you familiar with the EPA's Third  
12 Unregulated Monitoring Rule? Are you familiar with that?

13 A. I know that they are looking around the  
14 country at monitoring unregulated constituents. Is that  
15 what you are talking about?

16 Q. Right.

17 A. Yes, I am familiar with that. They have set  
18 up a system to track constituents for which they don't  
19 have MCLs.

20 (DEFENDANT EXHIBIT 302 WAS  
21 MARKED FOR IDENTIFICATION.)

22 Q. This is an Exhibit that has been marked 302.  
23 It is titled "The Third Unregulated Contaminant  
24 Monitoring Rule." Do you see that, at the top?

25 A. Yes, sir.

1 Q. And under UCMR 3, the contaminant list, do you  
2 see chromium-6 and vanadium included there?

3 A. Yes, sir.

4 Q. And at the bottom there, it says which water  
5 systems will participate in UCMR 3. Do you see that  
6 there -- the question?

7 A. Yes, sir.

8 Q. And then for list 1, which includes vanadium,  
9 chromium-6, it states that "All public water systems  
10 serving more than 10,000 people (i.e. large systems) and  
11 800 representative public water systems serving 10,000 or  
12 fewer people will monitor for 21 chemicals during the  
13 12-month period from 2013 to 2015." Do you see that  
14 there?

15 A. Yes, sir.

16 Q. Is that consistent with your understanding of  
17 the program?

18 A. Yes, sir.

19 Q. I want to show you -- this is 278 again -- the  
20 Salisbury/Rowan Utilities Drinking Water Report.

21 (Witness peruses document.)

22 This was marked previously as 278. And if you  
23 would open up to the "Facts and Figures" portion.

24 A. Okay.

25 Q. Do you see there in 2013 -- this is above the

1 hexavalent chromium chart that Mr. Holleman showed you  
2 earlier ---

3 A. Yes.

4 Q. --- it says, "Salisbury/Rowan Utilities  
5 participated in a voluntary monitoring program, The  
6 Unregulated Contaminant Monitoring Rule." Do you see  
7 that there?

8 A. Yes, sir.

9 Q. So they participated in this program, correct?

10 A. Yes, sir.

11 Q. And if you go up to the top, under "Facts and  
12 Figures," in the third sentence there it says, "The  
13 following regulated contaminants were detected in our  
14 finished water as analyzed between January 1 and December  
15 31, 2013, unless otherwise noted. Finished water is the  
16 water that leaves our treatment plant and is distributed  
17 throughout the system to your tap." Do you see that?

18 A. Yes, sir.

19 Q. So these testing results that were taken from  
20 these public water supplies would be based on treated  
21 water, right?

22 A. Yes, sir. That is correct.

23 Q. And for hexavalent chromium in Salisbury/Rowan  
24 for MRT, during the first quarter, second quarter, third  
25 quarter and fourth quarter, those would all have exceeded

1 the .07 level for hexavalent chromium, correct?

2 A. Yes, sir.

3 Q. And if you turn to the front of the page, even  
4 though they had levels in excess of the .07 Screening  
5 Level, they won an award for Winner of the North Carolina  
6 Area Optimization Award for surpassing Federal and State  
7 Drinking Water Standards; do you see that?

8 A. I do.

9 Q. Hexavalent chromium and vanadium are naturally  
10 occurring, correct?

11 A. Yes, sir.

12 Q. And I think you have testified before that  
13 those elements appear naturally in the groundwater and  
14 surface waters throughout North Carolina, correct?

15 A. Yes, sir.

16 Q. We have got two charts here.

17 MS. LeVEAUX: Brent, just for the record,  
18 from Exhibit 301 forward, if you could just get copies of  
19 those to us, please.

20 MR. ROSSER: Sure, sure.

21 (DEFENDANT EXHIBITS 303 AND 304  
22 WERE MARKED FOR IDENTIFICATION.)

23 BY MR. ROSSER:

24 Q. So, Dr. Williams, these are the results in  
25 North Carolina for the testing that we have been



1 discussing. And if you would take a look first at the  
2 chromium-6 levels -- and I am just going to kind of run  
3 through these, and you can tell me if you agree that they  
4 exceed the .07 Screening Level for hexavalent chromium.

5 A. And this is testing of what?

6 Q. This is testing of public water supplies  
7 pursuant to this program under the contaminated  
8 monitoring rule that we just discussed.

9 A. All right, thank you.

10 Q. And so the highlighted portions of the  
11 spreadsheet are where levels have been exceeded. So I am  
12 just going to run through these and highlight a couple.

13 A. Okay. All right.

14 Q. So you would agree that in Pinehurst they have  
15 a level above the .07 for hex-chrome, correct?

16 MR. TORREY: Objection.

17 THE WITNESS: Yes.

18 BY MR. ROSSER:

19 Q. And then in Cliffside West, if you move to the  
20 bottom of that first page, they have levels exceeding  
21 that .07, correct?

22 MR. TORREY: Objection.

23 THE WITNESS: Yes.

24 BY MR. ROSSER:

25 Q. And if you turn to the next page, towards the

1 bottom, the City of Dunn has levels in excess of .07,  
2 correct?

3 MR. TORREY: Objection.

4 THE WITNESS: Yes.

5 BY MR. ROSSER:

6 Q. And then Hoke County Regional Water System,  
7 correct?

8 MR. TORREY: Objection.

9 THE WITNESS: Yes.

10 BY MR. ROSSER:

11 Q. The Town of Smithfield, on the next page?

12 MR. TORREY: Objection.

13 THE WITNESS: Yes.

14 BY MR. ROSSER:

15 Q. The Town of Clayton?

16 MR. TORREY: Objection.

17 THE WITNESS: Yes.

18 BY MR. ROSSER:

19 Q. The City of Sanford?

20 MR. TORREY: Objection.

21 THE WITNESS: Yes.

22 BY MR. ROSSER:

23 Q. Southern Pines?

24 MR. TORREY: Objection.

25 THE WITNESS: Yes.

1 BY MR. ROSSER:

2 Q. Hamlet Water System?

3 MR. TORREY: Objection.

4 THE WITNESS: Yes.

5 BY MR. ROSSER:

6 Q. City of Rockingham?

7 MR. TORREY: Objection.

8 THE WITNESS: Yes.

9 BY MR. ROSSER:

10 Q. Richmond County?

11 MR. TORREY: Objection.

12 THE WITNESS: Yes.

13 BY MR. ROSSER:

14 Q. The City of Lumberton?

15 MR. TORREY: Objection.

16 THE WITNESS: Yes.

17 BY MR. ROSSER:

18 Q. Montgomery County?

19 MR. TORREY: Objection.

20 THE WITNESS: Yes.

21 BY MR. ROSSER:

22 Q. City of Graham?

23 MR. TORREY: Objection.

24 THE WITNESS: Yes.

25 BY MR. ROSSER:

1 Q. City of Lexington?

2 MR. TORREY: Objection.

3 THE WITNESS: Yes.

4 BY MR. ROSSER:

5 Q. Davie County?

6 MR. TORREY: Objection.

7 THE WITNESS: Yes.

8 BY MR. ROSSER:

9 Q. And then South Granville Water and Sewer  
10 Authority?

11 MR. TORREY: Objection.

12 THE WITNESS: Yes.

13 BY MR. ROSSER:

14 Q. Brookwood Community Water System?

15 MR. TORREY: Objection.

16 THE WITNESS: Yes.

17 BY MR. ROSSER:

18 Q. City of Asheboro?

19 MR. TORREY: Objection.

20 THE WITNESS: Yes.

21 BY MR. ROSSER:

22 Q. Reidsville?

23 MR. TORREY: Objection.

24 THE WITNESS: Yes.

25 MS. BLAKE: Actually, if I could -- how

1 long is this going to go on exactly, because I want to  
2 state on the record that we would like to reserve some  
3 time at the end so that we can ask questions in response  
4 to the questions that you are asking.

5 MR. ROSSER: Well, I mean, I think you took  
6 the full almost four hours, so we are going to take our  
7 time, as well. And he has got to leave at 1:30, so we  
8 have another hour.

9 MS. BLAKE: I was just wondering if we  
10 were going to spend it going through each line of these  
11 exhibits.

12 MR. ROSSER: Well, again, I think you have  
13 tried to establish on the record that these levels aren't  
14 present in other cities in North Carolina, so we would  
15 like to refute that with this document.

16 BY MR. ROSSER:

17 Q. The City of Mount Airy?

18 MR. TORREY: Objection.

19 THE WITNESS: Yes.

20 BY MR. ROSSER:

21 Q. Holly Springs?

22 MR. TORREY: Objection.

23 THE WITNESS: Yes.

24 BY MR. ROSSER:

25 Q. The City of Roxboro?

1 MR. TORREY: Objection.

2 THE WITNESS: Yes.

3 BY MR. ROSSER:

4 Q. Laurinburg?

5 MR. TORREY: Objection.

6 THE WITNESS: Yes.

7 BY MR. ROSSER:

8 Q. Roanoke Rapids?

9 MR. TORREY: Objection.

10 THE WITNESS: Yes.

11 BY MR. ROSSER:

12 Q. Halifax County?

13 MR. TORREY: Objection.

14 THE WITNESS: Yes.

15 BY MR. ROSSER:

16 Q. Kinston?

17 MR. TORREY: Objection.

18 THE WITNESS: Yes.

19 BY MR. ROSSER:

20 Q. North Lenoir?

21 MR. TORREY: Objection.

22 THE WITNESS: Yes.

23 BY MR. ROSSER:

24 Q. Deep Water Run -- or Deep Run Water  
25 Corporation?

1 MR. TORREY: Objection.

2 THE WITNESS: Yes.

3 BY MR. ROSSER:

4 Q. Camp Le Jeune?

5 MR. TORREY: Objection.

6 THE WITNESS: Yes.

7 BY MR. ROSSER:

8 Q. Elizabeth City?

9 MR. TORREY: Objection.

10 THE WITNESS: Yes.

11 BY MR. ROSSER:

12 Q. Eastern Pines Water Corporation?

13 MR. TORREY: Objection.

14 THE WITNESS: Yes.

15 BY MR. ROSSER:

16 Q. The Town of Fuquay?

17 MR. TORREY: Objection.

18 THE WITNESS: Yes.

19 BY MR. ROSSER:

20 Q. Bayleaf Master?

21 MR. TORREY: Objection.

22 THE WITNESS: Yes.

23 BY MR. ROSSER:

24 Q. And if you look at -- turn over to Bayleaf

25 Master, the pages aren't numbered, but there is a --

1 under -- if you look to the right on this page, it is  
2 NC0392373-Bayleaf Master, and then it is "Adams," it  
3 looks like, "Mtn #3"?

4 A. Yes, I see it.

5 Q. That shows a 9.1 level of hexavalent chromium?

6 A. Yes, sir. I see it.

7 Q. And then a 3.8 and 3.2 above and below that?

8 A. Yes, sir.

9 Q. If you turn over to Bayleaf again, towards the  
10 middle of the page, it is "Woodvalley #12 and #13"?

11 A. Yes, I see it.

12 Q. So it is 2.5, 2.4 and 3.9?

13 A. Yes, sir.

14 Q. And then Barton Creek Bluffs shows 2.7 and  
15 2.6, do you see that there? This is still Bayleaf.

16 A. Oh, I am sorry. I am sorry. Yes, sir. I see  
17 it.

18 Q. And then moving on, do you see Edgecombe Water  
19 Sewer District?

20 A. Yes.

21 Q. And then moving on, do you see Lincolnton here  
22 in excess of the Screening Level of .007?

23 MR. TORREY: Objection.

24 THE WITNESS: Where is Lincolnton? What  
25 page are you on?



1 BY MR. ROSSER:

2 Q. This is following Edgecombe.

3 A. I see Edgecombe.

4 Q. The next page, Lincolnton.

5 A. Yes, sir. I see it. Yes, I see it.

6 Q. And then King's Mountain?

7 A. Yes, sir.

8 Q. Mount Holly?

9 A. Yes, sir.

10 Q. Statesville?

11 A. Yes, sir.

12 Q. City of Newton?

13 A. Yes, sir.

14 Q. City of Conover?

15 A. Yes, sir.

16 Q. Salisbury?

17 A. Yes, sir.

18 Q. Kannapolis?

19 A. Yes, sir.

20 Q. Forest City?

21 A. Yes, sir.

22 Q. Albermarle?

23 A. Yes, sir.

24 Q. Iredell Water Corporation?

25 A. Yes, sir.

1 Q. And if you look at Iredell Water Corporation  
2 for 67 Well #20 and 67 Well #20 again, do you see levels  
3 of 4.9 and 3.6?

4 A. Yes, sir.

5 Q. And you see Alexander County, Town of  
6 Harrisburg, City of Lenoir again, Caldwell County -- do  
7 you see all of those?

8 A. Yes, sir.

9 Q. City of Wilson?

10 A. Yes, sir.

11 Q. Lincoln County, Hickory, Concord -- do you see  
12 those?

13 A. Yes, sir.

14 Q. Brunswick County?

15 A. Yes, sir.

16 Q. Rocky Mount, Cleveland County Water, City of  
17 Gastonia?

18 A. Yes, sir.

19 Q. Burlington, High Point, City of Raleigh?

20 A. Yes, sir.

21 Q. Union County?

22 A. Yes, sir.

23 Q. Davidson Waters Incorporated?

24 A. Yes, sir.

25 Q. Winston-Salem?

1 A. Yes, sir.

2 Q. Greensboro?

3 A. Yes, sir.

4 Q. Wilmington?

5 A. Yes, sir.

6 Q. Fayetteville -- back to the Wilmington page.

7 A. Yes, sir.

8 Q. Charlotte Mecklenburg Utility?

9 A. Yes, sir.

10 Q. Warren County, City of Asheville?

11 A. Yes, sir.

12 Q. Blowing Rock?

13 A. Yes, sir.

14 Q. So -- and then Highlands?

15 A. Yes, sir.

16 Q. So Mr. Holleman asked you earlier if you were  
17 aware of any levels throughout North Carolina that are  
18 above 1, correct?

19 A. Right.

20 Q. And this report would suggest that there are  
21 many instances where hexavalent chromium has been in  
22 excess of one part per billion, correct?

23 MR. TORREY: Objection.

24 THE WITNESS: Yes.

25 BY MR. ROSSER:

1 Q. And he asked you also if you were aware of any  
2 hexavalent chromium levels over 5 parts per billion?

3 A. Yes.

4 Q. And we showed you at least one of those,  
5 correct?

6 A. Right.

7 Q. So does this chart -- and this is treated  
8 water, correct?

9 A. Correct. Yes, sir.

10 Q. And so is this chart consistent with your view  
11 that throughout North Carolina there are levels in  
12 excess, in the cities that we named, of .07 parts per  
13 billion for hexavalent chromium?

14 A. Yes, sir.

15 Q. All right. Let's turn to vanadium now.

16 MR. ROSSER: And why don't we do this. If  
17 -- I can get through this quickly, but if you all will  
18 stipulate that the highlighted entries in yellow all show  
19 levels in excess of .3 parts per billion?

20 MS. BLAKE: I can't -- I mean, we can't  
21 stipulate to that without looking at it.

22 MR. ROSSER: Okay. All right.

23 MS. BLAKE: I think we will just -- if we  
24 are going to go through this exercise, we will just  
25 reserve the right to reconvene at a later date to ask any

1 questions we might have.

2 BY MR. ROSSER:

3 Q. So if you will look at vanadium, which the  
4 Screening Level is .3 parts per billion, correct?

5 A. Yes, sir.

6 Q. All right. You see exceedances of those level  
7 in Moore County Public Utilities?

8 MR. TORREY: Objection.

9 THE WITNESS: Yes.

10 BY MR. ROSSER:

11 Q. Cliffdale West?

12 MR. TORREY: Objection.

13 THE WITNESS: Yes.

14 BY MR. ROSSER:

15 Q. City of Dunn?

16 A. Yes.

17 Q. Hoke County?

18 A. Yes.

19 Q. Smithfield?

20 A. Yes.

21 Q. Sanford?

22 A. Yes.

23 Q. Southern Pines?

24 A. Yes.

25 Q. Hamlet Water System?

1           A.    Yes.

2           Q.    Rockingham?

3           A.    Yes.

4           Q.    Richmond?

5           A.    Yes.

6           Q.    Lumberton?

7           A.    Yes.

8           Q.    Montgomery County?

9           A.    Yes.

10          Q.    Eden?

11          A.    Yes.

12          Q.    Lexington?

13          A.    Yes.

14          Q.    Thomasville?

15          A.    Yes.

16          Q.    Brookwood Community Water System?

17          A.    Yes.

18          Q.    Asheboro?

19          A.    Yes.

20          Q.    Chatham County?

21          A.    Yes.

22          Q.    Town of Reidsville?

23          A.    Yes.

24          Q.    Dan River Watch, Inc.?

25          A.    Yes.

1 Q. City of King?  
2 A. Yes.  
3 Q. City of Mount Airy?  
4 A. Yes.  
5 Q. Henderson Kerr Lake Regional Water?  
6 A. Yes.  
7 Q. Anson County?  
8 A. Yes.  
9 Q. Holly Springs?  
10 A. Yes.  
11 Q. Roxboro?  
12 A. Yes.  
13 Q. Roanoke Rapids?  
14 A. Yes.  
15 Q. Kinston?  
16 A. Yes.  
17 Q. North Lenoir?  
18 A. Yes.  
19 Q. Deep Run Water?  
20 A. Yes.  
21 Q. Elizabeth City?  
22 A. Yes.  
23 Q. Eastern Pines?  
24 A. Yes.  
25 Q. Fuquay-Varina?

1 A. Yes.

2 Q. Bayleaf Master?

3 A. Yes.

4 Q. And you look at the bottom of Bayleaf Master  
5 where Olde Creedmoor is ---

6 A. Yes.

7 Q. --- do you see levels there of 7.8, 6.9, 4.3?

8 A. Yes, sir.

9 Q. And then Wood Valley at the bottom, do you see  
10 levels of 4.3, 8.3 and 7.3?

11 A. Yes, sir.

12 Q. And then by Boulder Creek and Barton Creek, do  
13 you see levels there of 9.6 and 10?

14 A. Yes, sir.

15 Q. Continuing on to Bayleaf, do you see here Wood  
16 Valley #13, towards the bottom?

17 A. Is that the same page or ---

18 Q. The next page.

19 A. Oh, I am sorry.

20 (Witness peruses document.)

21 Yes, I see it.

22 Q. That shows 8.6?

23 A. Yes, sir.

24 Q. And below that, 2.9 and 2.5?

25 A. Right. And 8.8 and 7.9.



1 Q. Right. So Edgecombe Water District, does that  
2 show levels in excess of .3?

3 A. Yes, sir.

4 Q. Brunswick Regional?

5 A. Yes, sir.

6 Q. Craven County?

7 A. Yes, sir.

8 Q. West Wilkes Water Association?

9 A. Yes, sir.

10 Q. Lincolnton?

11 A. Yes, sir.

12 Q. King's Mountain?

13 A. Yes, sir.

14 Q. The City of Mount Holly?

15 A. Yes, sir.

16 Q. Statesville?

17 A. Yes, sir.

18 Q. Mooresville?

19 A. Yes, sir.

20 Q. City of Conover?

21 A. Yes, sir.

22 Q. Do you see Town of Mooresville on the ---

23 A. (Interposing) Yes, sir.

24 Q. --- 45081 distribution system?

25 A. Yes, sir.

1 Q. That is showing a level of 10 parts per  
2 billion?

3 A. Yes, sir.

4 Q. Kannapolis?

5 A. Yes, sir.

6 Q. Forest City?

7 A. Yes, sir.

8 Q. City of Albermarle?

9 A. Yes, sir.

10 Q. And Iredell Water Corporation?

11 A. Yes, sir.

12 Q. And then if you look at the 45083 Distribution  
13 System ---

14 A. Yes, sir.

15 Q. --- do you see 4.2 for vanadium?

16 A. Yes, sir.

17 Q. 6.3?

18 A. Yes, sir.

19 Q. 6.9?

20 A. Yes, sir.

21 Q. And then 6.1, also for Iredell?

22 A. Yes, sir. Uh-huh.

23 Q. Well #35, do you see that there?

24 A. Yes, sir.

25 Q. Shelby?

1 A. Yes, sir.

2 Q. And then right above Shelby, do you see  
3 another Iredell level at 8.7?

4 A. Yes, sir.

5 Q. Do you see that?

6 A. Yes, sir.

7 Q. Alexander County?

8 A. Yes, sir.

9 Q. Town of Valdese?

10 A. Yes, sir.

11 Q. Harrisburg?

12 A. Yes, sir.

13 Q. Caldwell County?

14 A. Yes, sir.

15 Q. Goldsboro?

16 A. Yes, sir.

17 Q. Rocky Point?

18 A. Yes, sir.

19 Q. Lincoln County?

20 A. Yes, sir.

21 Q. Hickory?

22 A. Yes, sir.

23 Q. Concord?

24 A. Yes, sir.

25 Q. Robeson County?

1 A. Yes, sir.

2 Q. Brunswick County?

3 A. Yes, sir.

4 Q. Rocky Mount?

5 A. Yes, sir.

6 Q. Greenville Utilities Commission?

7 A. Yes, sir.

8 Q. Cleveland County?

9 A. Yes, sir.

10 Q. Gastonia?

11 A. Yes, sir.

12 Q. Burlington?

13 A. Yes, sir.

14 Q. High Point?

15 A. Yes, sir.

16 Q. Neuse Regional Water?

17 A. Yes, sir.

18 Q. Union County?

19 A. Yes, sir.

20 Q. Winston-Salem?

21 A. Yes, sir.

22 Q. Fayetteville?

23 A. Yes, sir.

24 Q. Wilmington?

25 A. Yes, sir.

1 Q. Charlotte?

2 A. Yes, sir.

3 Q. And the last page, Warrenton?

4 A. Yes, sir.

5 Q. Warren County?

6 A. Yes, sir.

7 Q. Mayodan, Mayodan (phonetic)?

8 A. Yes, sir.

9 Q. So having looked at that particular chart, is  
10 that consistent with your view that vanadium levels  
11 throughout cities in North Carolina show levels in excess  
12 of .3 parts per billion of vanadium?

13 A. Yes, sir.

14 Q. So we have got 40 minutes here, so I am going  
15 to move pretty quickly.

16 A. Okay, thank you.

17 Q. You are familiar with the Safe Water Drinking  
18 Act, correct?

19 A. Yes, sir.

20 Q. And you are familiar with MCLs?

21 A. Yes, sir.

22 Q. If you could go to the "Frequently Asked  
23 Questions" document.

24 VOICE: What is the number?

25 MR. ROSSER: 286 [sic].

1 (Witness peruses document.)

2 BY MR. ROSSER:

3 Q. And you see here that it says "MCLs -- at the  
4 bottom, last paragraph, second sentence -- "MCLs ensure  
5 that drinking water poses neither a short term nor a long  
6 term health risk." Do you see that there?

7 A. I am sorry, you are on which page?

8 Q. The first page, page 1.

9 A. Yes. I see that, yes.

10 Q. This was marked 289 in a previous one. Dr.  
11 Williams, are you familiar with this document?

12 A. Yes.

13 Q. You have reviewed it before?

14 A. Yes.

15 Q. The first sentence states that "The current  
16 Maximum Contaminate Level for Chromium in all forms in  
17 drinking water is 100 parts per billion, which includes  
18 chromium-6." Do you see that there?

19 A. Yes.

20 Q. Do you agree with that statement?

21 A. Yes.

22 Q. And then it says, under the first heading, the  
23 fifth paragraph, it says, "The current Drinking Water  
24 Standard sets the Maximum Level of total chromium allowed  
25 in drinking water, and this standard addresses all forms

1 of chromium, including chromium-6." Do you see that?

2 A. Yes, sir.

3 Q. And you agree with that statement?

4 A. When you say, "Do I agree," is that what it  
5 says?

6 Q. Do you agree with it?

7 A. Yes.

8 Q. All right. And then on page 2 of the  
9 document, under, "Is the EPA currently considering  
10 putting a limit on how much chromium-6 can be in drinking  
11 water," it states, "The EPA currently regulates  
12 chromium-6 as part of the total Drinking Water Standard."  
13 Do you see that?

14 A. Yes.

15 Q. Do you agree with that?

16 A. Yes.

17 Q. All right. If we could go to a document that  
18 has been previously marked at 291 ---

19 (Witness peruses document.)

20 --- are you familiar with this document?

21 A. Yes.

22 Q. And what is this document?

23 A. This is the report from DEQ to the  
24 Environmental Review Commission on their final report on  
25 the study of Standards and Health Screening Levels for

1 hexavalent chromium and vanadium.

2 Q. This particular document references an  
3 agreement reached by -- let's see -- an agreement between  
4 DHHS and DEQ, Division of Waste Management, for the  
5 development of Health Risk Evaluations for private well  
6 users. Do you recognize that?

7 A. Yes.

8 Q. What agreement is that referencing?

9 A. Do you mean about the report? That we  
10 would -- that we would agree to send in a report?

11 Q. Right. That there was an agreement  
12 between ---

13 A. (Interposing) Right. We agreed that we would  
14 send in an interim report -- or a final report no later  
15 than April 1<sup>st</sup> in conjunction with DEQ; is that what you  
16 are saying? And they prepared the report and we reviewed  
17 it.

18 Q. Right. And let me ---

19 MR. ROSSER: Can we go off the record one  
20 second?

21 MR. ROSSER: OFF THE RECORD. 12:54 P.M.

22 (DISCUSSION OFF THE RECORD.)

23 MR. ROSSER: ON THE RECORD. 12:54 P.M.

24 BY MR. ROSSER:

25 Q. The bottom of page 3 ---



1 A. Okay.

2 Q. --- it says, "HHS Health Screening Levels for  
3 vanadium and hex chromium were calculated" -- do you see  
4 that sentence there?

5 (Witness peruses document.)

6 A. Yes, uh-huh.

7 Q. And it talks about, "according to the  
8 precedence outlined in an agreement between HHS and  
9 DEQ ---

10 A. (Interposing) Yes.

11 Q. --- "for the development of Health Risk  
12 Evaluations for private well users."

13 A. Yes, yes.

14 Q. Dr. Davies testified that that agreement  
15 references a January 16<sup>th</sup>, 2014, letter. Are you  
16 familiar with that letter?

17 A. No.

18 Q. Let's -- 292, go back to that exhibit.

19 (Witness peruses document.)

20 A. Okay.

21 Q. Have you seen this letter before?

22 A. I don't -- I don't remember, but I don't  
23 believe so.

24 Q. Okay. In the second paragraph here, it says,  
25 "Toxicologists in programs in DENR and HHS providing HRES

1 have agreed to make recommendations on the private wells  
2 by comparing contaminant concentration found in samples  
3 of the private wells to" -- do you see that there?

4 A. Yes, uh-huh.

5 Q. And then the federal maximum contaminant  
6 levels" ---

7 A. Right.

8 Q. --- and then the groundwater standards ---

9 A. Right.

10 Q. --- and then the procedures set forth in the  
11 groundwater rules; do you see that there?

12 A. Right. Yes, sir.

13 Q. If EPA regulates chromium-6 as part of the  
14 total chromium drinking water standard, why did HHS not  
15 set the screening level at 100 parts per billion under  
16 step 1 of this agreement?

17 A. Because my understanding is their  
18 interpretation was, was that they were asked to look at  
19 hexavalent chromium, which they differentiated from  
20 chromium.

21 Q. And "they" being who?

22 A. Ken Rudo and Megan and Mina. And DEQ -- well,  
23 that is my understanding of it.

24 Q. I believe that you just testified that you  
25 agree that EPA regulates chromium-6 as part of the total

1 drinking -- chromium standard, correct?

2 A. Well, in municipal water, yes.

3 Q. And so if -- the first criteria here is  
4 talking about municipal waters, correct?

5 A. Yes, uh-huh.

6 Q. And private wells?

7 A. Right.

8 Q. And so, presumably, that would have required  
9 -- the agreement required HHS to stop there at step 1?

10 A. That would be one interpretation.

11 Q. And then it went to -- instead of the second  
12 step -- or instead of the first step, it went all the way  
13 to the third step, is that right?

14 A. Because there was no IMAC, correct.

15 Q. Were you involved at all in calculating the  
16 Health Screening Value for .07?

17 A. No.

18 (DEFENDANT EXHIBIT 305 WAS  
19 MARKED FOR IDENTIFICATION.)

20 Q. Dr. Williams, Exhibit 305 is before you. This  
21 is an e-mail from Sandy Mort to Dr. Shehee. Do you see  
22 that there?

23 A. Yes, sir.

24 Q. Who is Sandy Mort?

25 A. I don't -- I am not sure. I think she worked

1 in DHHS, and then they -- I don't think she is there any  
2 longer.

3 Q. Do you understand, in calculating the .07  
4 level for hexavalent chromium, that HHS applies a Cancer  
5 Slope Factor?

6 A. Yes, sir.

7 Q. And that Cancer Slope Factor, according to  
8 this e-mail, was based upon an EPA document entitled  
9 "Toxicological Review of Hexavalent Chromium in Support  
10 of Summary Information on the Integrated Risk Information  
11 System." Do you see that there?

12 A. Yes, sir. Uh-huh.

13 Q. Is that an accurate statement of the e-mail?

14 A. Yes, sir.

15 Q. Are you familiar with this EPA document?

16 A. No, I am familiar with IRIS, but not the EPA  
17 document.

18 (DEFENDANT EXHIBIT 306 WAS  
19 MARKED FOR IDENTIFICATION.)

20 Q. This appears to be the document referenced in  
21 that e-mail, correct?

22 (Witness peruses document.)

23 A. Yes. Yes, sir.

24 Q. And this is what HHS based its updated Cancer  
25 Slope Factor on, correct, according to this e-mail?

1 A. Yes, sir.

2 Q. Do you see here under "Notice" that it says  
3 that, "This document is an external review draft"?

4 A. Uh-huh. Yes, sir.

5 Q. And that "This information is distributed  
6 solely for the purpose of pre-dissemination peer review  
7 under applicable information quality guidelines." Do you  
8 see that?

9 A. Yes, sir.

10 Q. Then it says, "It does not represent and  
11 should not and construed to represent any Agency  
12 determination or policy."

13 A. Yes, sir.

14 Q. Do you see that? And if you would turn to the  
15 next page, it says, "This document is a preliminary  
16 draft," correct?

17 A. Yes, sir.

18 Q. "For review purposes only," correct?

19 A. Yes, sir.

20 Q. And then if you turn to the third page, 229,  
21 there is an Oral Slope Factor referenced there.

22 A. Yes, sir.

23 Q. And that is the Cancer Slope Factor values  
24 based upon" -- do you see that language right there?

25 A. Yes, sir.

1 Q. And they -- therefore, they adopted -- or the  
2 language here says, "The CFS [sic] of .5, based upon the  
3 incidence of neoplasms in the small intestine of male  
4 mice was selected as the most appropriate CSF for  
5 hexavalent chromium." Do you see that?

6 A. Yes, sir.

7 Q. And so is that the -- does that appear to be  
8 the Slope Factor that HHS incorporated into calculating  
9 the screening levels for hexavalent chromium?

10 A. Yes, sir.

11 Q. And at the bottom of the page, it says --  
12 again, it reiterates -- it says "Draft" in bold in all  
13 caps?

14 A. Right.

15 Q. And then it says "do not cite or quote"?

16 A. Correct.

17 Q. Based on the notices and disclaimers I just  
18 described to you, would you agree that this document was  
19 circulated solely for purposes of pre-dissemination peer  
20 review?

21 A. Yes.

22 Q. Based upon this notice, do you agree that this  
23 document is a preliminary draft for review purposes only?

24 A. Yes.

25 Q. And reviewers are instructed not to cite or

1 quote it?

2 A. Yes.

3 Q. Based upon this notice, do you agree that this  
4 document does not represent and should not be construed  
5 to represent any Agency determination or policy?

6 A. Correct.

7 Q. And do you agree that this document has not  
8 been formally disseminated by EPA?

9 A. Yes.

10 Q. But based upon this e-mail, isn't it true that  
11 HHS staff relied on this draft and yet to be peer  
12 reviewed report in setting the Cancer Slope Factor for  
13 hexavalent chromium in calculating the screening level  
14 for hexavalent chromium?

15 MR. TORREY: Objection.

16 THE WITNESS: It appears that way.

17 BY MR. ROSSER:

18 Q. Are you familiar with the 2L Groundwater  
19 Rules?

20 A. Yes, sir.

21 (DEFENDANT EXHIBIT 307 WAS  
22 MARKED FOR IDENTIFICATION.)

23 Q. Would you ---

24 MR. TORREY: Are you entering this as an  
25 exhibit?

1 MR. ROSSER: Yes, what number?

2 THE REPORTER: 307.

3 MR. ROSSER: 307.

4 BY MR. ROSSER:

5 Q. Does this appear to be a copy of the 2L  
6 Groundwater Rules?

7 A. Yes, sir.

8 Q. You have seen this document before?

9 A. I have seen parts of it.

10 Q. Going back to the letter agreement that I  
11 showed you earlier -- I think that is it.

12 A. Oh, here it is, I have got it right here.  
13 Yes, sir.

14 Q. And the date of that letter is what?

15 A. January 16<sup>th</sup>, 2014.

16 Q. Under the third step in the process pursuant  
17 to the agreement, it references the 15 NCAC 2L. 0202, do  
18 you see that?

19 A. Yes, sir. I do.

20 Q. If you wouldn't mind turning to that section  
21 of the Groundwater Rules.

22 A. Okay.

23 (Witness peruses document.)

24 MR. ROBBINS: I am sorry, can you give me  
25 that citation again?



1 MR. ROSSER: Sure. It is 15 NCAC 02L.  
2 0202.

3 MR. BARKLEY: I think you meant 15A.

4 THE WITNESS: Okay. Yes, sir.

5 BY MR. ROSSER:

6 Q. If you would look at -- and this is the  
7 Groundwater Quality Standard Section, correct?

8 A. Yes, sir.

9 Q. And this is what, pursuant to that letter  
10 agreement, that absent of federal MCL standard or an IMAC  
11 that HHS would use in establishing a screening level for  
12 hexavalent chromium, correct?

13 A. Correct.

14 Q. And so if you would look at subsection (e).

15 A. Okay.

16 Q. It talks about -- it says, "The following  
17 references, in order of preference, shall be used in  
18 establishing concentrations of substances which  
19 correspond to levels described in Paragraph (d) of this  
20 Rule." Do you see that?

21 A. Yes, sir. I do.

22 Q. And it says the Integrated Risk Information  
23 System ---

24 A. IRIS, yes, sir.

25 Q. --- Health Advisories?

1 A. Yes, sir.

2 Q. Other health risk assessment data?

3 A. Yes, sir.

4 Q. Other relevant published health risk data and  
5 scientifically valid peer reviewed published  
6 toxicological data; do you see that?

7 A. Yes, sir.

8 Q. Where in this Rule does it allow for the  
9 consideration of preliminary draft documents?

10 A. It does not.

11 Q. Where in this Rule does it allow for the  
12 consideration of documents that have yet to be peer  
13 reviewed?

14 A. It does not.

15 Q. Where in this Rule does it allow for the  
16 consideration of documents that have not even been  
17 published?

18 A. Well, if it came from IRIS or a health  
19 advisory, but I don't think that pertains to this.

20 Q. And, in fact, (4) refers to published health  
21 risk data, correct?

22 A. Right. Yes, sir.

23 Q. And scientifically valid peer reviewed  
24 published data, correct?

25 A. Yes, sir.

1 Q. If we could go back to this document real  
2 quick. I have got 20 minutes.

3 A. Okay.

4 MR. TORREY: Which exhibit is that?

5 MR. ROSSER: This is the ---

6 MR. ROBBINS: What is the number?

7 MS. SPAK: 278.

8 THE REPORTER: 278.

9 BY MR. ROSSER:

10 Q. All right. If you would open that up to the  
11 bottom, it says "Extra Note" there at the bottom of this  
12 document. This is under the hexavalent chromium. And  
13 then "key to unit abbreviations."

14 (Witness peruses document.)

15 A. Thank you, okay. Yes, sir.

16 Q. It says, "MCL's are set at very stringent  
17 levels." Do you see that?

18 A. Yes, sir.

19 Q. It says, "To understand the possible effects  
20 described for many regulated constituents, a person would  
21 have to drink 2 liters of water every day at the MCL  
22 level for a lifetime to have a one-in-a-million chance of  
23 having the described health effect."

24 A. Yes, sir.

25 Q. Do you see that there? So if -- I think you

1 have stated today that exposure to chromium-6, though a  
2 cancer risk if there is one, is a chronic one, not an  
3 acute one; correct?

4 A. Well, again, we -- that is the whole problem  
5 when you look at cancer. And there has been talk of, you  
6 know, that these are genotoxic mutagens. But it is  
7 intuitive that we think that for most people that length  
8 of exposure, degree of exposure certainly plays a factor.  
9 But on the other hand, there would be some people who are  
10 exposed to the sun would be more likely to develop skin  
11 cancer than others exposed at the same length.

12 Q. Okay.

13 A. So it gets very complex when you talk about  
14 length of exposure and degree of exposure.

15 Q. But to create a one in a million risk ---

16 A. It would be two liters over 70 years.

17 Q. Over 70 years?

18 A. Yes.

19 Q. Two liters a day over 70 years?

20 A. Right, right.

21 Q. On a percentage basis, how many people fit  
22 that category?

23 A. I would think very small.

24 Q. And so if I -- if I drank water at a .07 parts  
25 per billion for hex chromium for, say, 50 years, two

1       liters a day, how does that affect ---

2             A.   Well, I think that is the whole modeling  
3       problem is that, you know, this is for 70 years; now you  
4       ask me what about 50 years?  And I would get back to the  
5       quote from Aristotle.  You are now asking me to give a  
6       level of precision that would be misleading for me to  
7       even think that I could do that -- or, I would argue,  
8       anyone.

9             Q.   I will show you an additional document.

10                               (DEFENDANT EXHIBIT 308 WAS  
11                               MARKED FOR IDENTIFICATION.)

12             This is Exhibit 308.

13             (Pause.)

14             I am sorry, I am trying to move quickly here.

15       Do you see section 4.8A there?

16             A.   Yes, sir.

17             Q.   Are you familiar with this Session Law?

18             A.   No, sir.

19             Q.   Do you see where it starts with, "The  
20       Department of Environment and Natural Resources" ---

21             A.   Yes, sir.

22             Q.   --- "in conjunction with the Department of  
23       Health and Human Services."  Do you see that?

24             (Witness peruses document.)

25             This is under subsection (a).

1 A. Well I see ---

2 (Witness peruses document.)

3 Okay, yes, sir. I am sorry. Yes, sir.

4 Q. And it states that DEQ and HHS shall study ---

5 A. (Interposing) Yes, I have seen this.

6 Q. You have seen this? Okay.

7 A. Yes, I am sorry.

8 Q. And it says the State's groundwater standards,  
9 the IMACs, as well as State Health Screening Levels for  
10 hexavalent chromium and vanadium ---

11 A. (Interposing) Yes, sir.

12 Q. --- relative to other southeastern state  
13 standards for these contaminants, and the federal maximum  
14 levels for these contaminants under the Safe Drinking  
15 Water Act. Do you see that?

16 A. Yes, sir. I do. I have seen this before.

17 Q. All right. Then it says the Department shall  
18 also evaluate background standards for these contaminants  
19 where they naturally occur in groundwater?

20 A. Yes, sir.

21 Q. Were you involved at all in reviewing other  
22 southeastern standards for these contaminants?

23 A. No, sir. DEQ prepared this report and then  
24 just sent it over to us to review.

25 Q. And do you know exactly when -- well, do you

1 know when this particular law was enacted?

2 A. No, sir.

3 Q. If I told you it was enacted on April 15,  
4 2015, would you have any reason to just disagree with  
5 that?

6 MR. TORREY: Objection.

7 MR. ROBBINS: Objection.

8 MR. BARKLEY: Objection.

9 THE WITNESS: I -- no.

10 BY MR. ROSSER:

11 Q. And this law requires, would you agree, that  
12 HHS and DENR review screening levels for hex chrome and  
13 vanadium relative to other southeastern state standards,  
14 correct?

15 A. Yes, sir.

16 Q. Does it say anywhere that DEQ and DENR should  
17 study their health screening levels relative to  
18 California standards?

19 A. No, sir.

20 Q. I am just trying to jump over a few things in  
21 my outline. I have got 15 minutes.

22 A. Thank you.

23 Q. Dr. Williams, do you have any evidence that  
24 CCR impoundments are impacting any of the private wells,  
25 sitting here today?

1           A.    No, sir.  That is what DEQ evaluates.

2           Q.    Dr. Davies states in her deposition that the  
3 reports of efforts -- well, this was a reason that she  
4 said you gave for issuing these "do not drink" letters.  
5 And I quote, "There were reports of efforts in the  
6 General Assembly to construct legislation that would  
7 restrict the Division of Public Health's ability to work  
8 in the area of wells in general."  Do you recall seeing  
9 that when you reviewed her testimony?

10          A.    Yes.  And that is true.

11          Q.    That is true?

12          A.    Yes, sir.

13          Q.    Did you send the "do not drink" letters as a  
14 result of your fear that the General Assembly would take  
15 over the authority over private wells?

16          A.    No, sir.

17          Q.    So to the extent that appeared in news  
18 reports, that would be false, correct?

19          A.    Correct.

20          Q.    Dr. Davies also testified that you expressed  
21 -- quote, "expressed a lot of concern about the stress  
22 that people who had received the recommendation not to  
23 use water for drinking or cooking would experience as a  
24 result, and that there is a countervailing risk in not  
25 using your well water and having to use either bottled



1 water or some other source."

2 A. Right.

3 Q. Do you remember seeing that testimony?

4 A. I do.

5 Q. Do you remember mentioning that to Dr. Davies?

6 A. Oh, yes.

7 Q. And explain why that is crucial here?

8 A. Because I just think that, as I have testified  
9 earlier, as the staff went through their process to do  
10 this, and followed the system that they normally would  
11 follow, I think what they didn't appreciate -- and it is  
12 just -- I mean, when you put in a policy, there can be  
13 unintended consequences. And that was because this was  
14 cancer -- and I say this because I get almost no  
15 questions about vanadium. I get hundreds of questions  
16 about hexavalent chromium and cancer -- that they did not  
17 factor in that the risk of cancer would in some ways  
18 almost make this a defacto regulation and not a  
19 recommendation.

20 And in their past experience, they would make  
21 a recommendation, people would mitigate or, you know,  
22 look at it and that would be that. But in this case,  
23 that almost elevated it to the level of a risk of a  
24 regulation.

25 Q. And going back to your earlier testimony with

1 Mr. Holleman, you talked about the sampling of various  
2 wells. And there were some instances where values  
3 exceeded 10 parts per billion?

4 A. Yes.

5 Q. Was that vanadium or hexavalent chromium?

6 A. Hexavalent chromium.

7 Q. Okay. How many of those did you see?

8 A. Well, I am aware of seven. There may be more,  
9 but I am aware of seven.

10 Q. Seven out of how many tests?

11 A. Around 240. If there are more that need to be  
12 brought to my attention, I will double check.

13 Q. Has anyone within HHS or DEQ -- because those  
14 are outliers, has anyone reviewed those results to verify  
15 that they are accurate?

16 MR. TORREY: Objection.

17 THE WITNESS: Well, the first thing we are  
18 going to do, I mean -- or I would hope, is probably  
19 retest. I mean -- you know, remember, seven of those  
20 three were in the 10 range. They were very close to 10.  
21 You know, the two or three that were more elevated than  
22 that were really outliers. And so that always makes you  
23 concerned.

24 BY MR. ROSSER:

25 Q. And so why is retesting important?

1           A. Well, again, one of the issues here is we talk  
2 about municipal water, which is constantly tested. And  
3 we talk about well water, we are talking about usually  
4 one test. And so we know there are ranges here, and that  
5 it is a dynamic process. And so I think that if we are  
6 going to make fairly binding recommendations, as it  
7 turned out, it would behoove us to follow up on that.

8           Q. And you mentioned a dynamic process. What do  
9 you mean by that?

10          A. Well, you know, water changes. I mean, you  
11 can see in the municipal water supplies that it is a  
12 range, it is not one -- it is not a snapshot, it is a  
13 movie.

14          Q. Could those levels have anything to do with  
15 the structure of the well?

16          A. That is beyond my level of expertise.

17          Q. Would you expect if they were -- those  
18 exceeded levels were caused by, say, an ash impoundment,  
19 wouldn't you expect to see more of those levels prevalent  
20 in the sampling you have taken?

21                 MR. TORREY:        Objection.

22                 THE WITNESS:      Well, if you look at the study  
23 that I gave you out of Athens, those levels tended to be  
24 more in the 40, 50, 130 -- that range. There were some  
25 that were in the 10 range, but that was a study where,

1       you know, at times they could smell and see that there  
2       were chemicals in the water. So we think that that is  
3       just a really different scenario than levels of .07  
4       micrograms per liter.

5                   BY MR. ROSSER:

6               Q.    So the Greece study says that -- and I am  
7       reading from the "Conclusion" section that you read -- it  
8       says, "In light of potentially widespread health  
9       implications of such contamination" -- talking about  
10      hexavalent chromium, correct?

11              A.    Yes, sir.

12              Q.    --- "further studies are critically needed to  
13      explore the possible causal link between exposure to  
14      hexavalent chromium through drinking water and cancer  
15      risk."

16              A.    That is what it says and that is what I agree  
17      with.

18              Q.    So you agree with that?

19              A.    Yes, sir.

20              Q.    If Mr. Holleman stated during Dr. Davies'  
21      deposition that this Greece study supported a link  
22      between hexavalent chromium and cancer, that would not be  
23      accurate, would it?

24              A.    Well, again, it is an ecological study similar  
25      to the one that we told Rick that we questioned whether

1       that was valid. I mean, they are both studies in which  
2       you are looking -- so my only point about that was, was  
3       that that study is very similar to the cancer cluster  
4       studies that we argued that probably weren't -- have  
5       much, I think I used the word, "credibility," or -- so  
6       they are very -- they are the same studies.

7             Q. But the way I read this, it says, "Further  
8       studies are critically needed to explore the possible  
9       causal link between exposure to hexavalent chromium  
10      through drinking water and cancer risk." Do you see  
11      that?

12            A. Yes.

13            Q. And so if Mr. Holleman asked Dr. Davies if she  
14      is aware of this Greece study, and that it showed a  
15      causal link between exposure to hexavalent chromium  
16      through drinking water and cancer, that would not be  
17      correct?

18            A. That would not be true. It does not show a  
19      causal link. And again, in the mice models you are  
20      really talking about stomach cancer primarily. In that,  
21      there were liver cancer, kidney cancer and female cancer  
22      -- genitourinary cancer in, you know, very small numbers.  
23      So, again, that is where it gets very complex that you  
24      are talking about the risk of, quote/unquote, "cancer."

25                    When people talk about human studies, they

1 quote that, which is a different kind of cancer. When  
2 they quote the modeling, they quote "cancer." But that  
3 is a stomach cancer. So that is why, when we put this  
4 word out that it causes a one in a million risk of cancer  
5 or one in a hundred thousand, we have to weigh that  
6 evidence compared to other things that we know have a  
7 causal link, like H. pylori in stomach cancer or HPV in  
8 cervical cancer.

9 Q. You mentioned that -- well, let me just ask  
10 you, as a general matter, in connection with your work  
11 with HHS starting in July of 2015 -- correct?

12 A. Yes, uh-huh.

13 Q. --- have you found Duke Energy to be generally  
14 cooperative in working with HHS in connection with these  
15 issues?

16 A. I have had no interaction with Duke Energy.

17 Q. Have you ---

18 A. (Interposing) I mean, personally, other than I  
19 got a report that came through someone else.

20 Q. You remember just a second ago -- well, about  
21 an hour and a half ago, that Mr. Holleman stated that  
22 levels of hexavalent chromium around the ash ponds -- if  
23 you were aware that they were consistent with the levels  
24 reported in California in connection with the Erin  
25 Brockovich case?

1 MR. TORREY: Objection.

2 THE WITNESS: Yes, sir.

3 BY MR. ROSSER:

4 Q. Do you remember him asking you that question?

5 A. Yes, sir.

6 Q. And he asked you if you were aware of such  
7 levels. And what was your answer to that?

8 MR. TORREY: Objection.

9 THE WITNESS: I was not.

10 BY MR. ROSSER:

11 Q. So you, sitting here today, you are not aware  
12 of those levels?

13 A. I don't know what those numbers were.

14 Q. Okay.

15 A. I think at some point I have seen that, but I  
16 don't remember.

17 Q. Okay. Those levels were at 580 parts per  
18 billion hexavalent chromium and 5,280 parts per billion,  
19 all right?

20 MR. TORREY: Objection, foundation.

21 BY MR. ROSSER:

22 Q. Have you seen any levels for hexavalent  
23 chromium anywhere close to 580 parts per billion -- well,  
24 let me start here. Have you seen any levels in the  
25 private wells around the coal ash ponds anywhere close to

1 5,280 parts per billion?

2 MR. ROBBINS: Objection.

3 THE WITNESS: No, sir.

4 MR. ROSSER:

5 Q. Have you seen any levels anywhere close to 580  
6 parts per billion?

7 MR. ROBBINS: Objection.

8 THE WITNESS: No, sir.

9 BY MR. ROSSER:

10 Q. So the statement from Mr. Holleman that some  
11 of the private wells have shown levels consistent with  
12 the levels in California in connection with Erin  
13 Brockovich would not be accurate, correct?

14 MR. TORREY: Objection, mischaracterizes  
15 the question.

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 THE WITNESS: Well, I don't -- he may be  
19 talking about other wells, I don't know. I mean, not  
20 those wells.

21 BY MR. ROSSER:

22 Q. Not these wells?

23 A. Not those wells, but he might have been  
24 talking about other wells.

25 MR. ROSSER: All right. We have got four



1 minutes. I am going to take two minutes to talk to my  
2 colleague here, and then we will come back and see if we  
3 have any further questions.

4 MR. ROSSER: OFF THE RECORD. 1:27 P.M.

5 (A BRIEF RECESS WAS TAKEN.)

6 MR. ROSSER: ON THE RECORD. 1:29 P.M.

7 MR. BARKLEY: I just need to say right now  
8 it is 1:30.

9 MR. ROSSER: Okay.

10 BY MR. ROSSER:

11 Q. One more question. You said you were waiting  
12 for more information from EPA on hexavalent chromium,  
13 correct?

14 A. Yes.

15 Q. And that is due out in December?

16 A. That is what is what they told me personally.

17 Q. What is HHS planning to do once it receives  
18 that information?

19 A. Well, again, I think what we expect that  
20 information to be is just guidance on the health risk of  
21 hexavalent chromium. We are not expecting a level. I  
22 mean, I don't want to mislead people on that. But we  
23 think that it will give us a lot better insight into this  
24 issue about total chromium versus hexavalent chromium --  
25 the health risk.

1           Q.    So once you receive that study, HHS will  
2    review it and take any next steps as appropriate,  
3    correct?

4           A.    Correct.

5           MR. ROSSER:        I am done for today.  We do  
6    want to hold this open for further questioning in light  
7    of the fact that I had an hour and a half as opposed to  
8    four hours.  So -- but I appreciate your time today.

9           THE WITNESS:       Well, you have been very  
10   gracious, very patient.  Thank you.

11          MR. TORREY:        And just to be clear, do you  
12   need -- do we need to ---

13          THE WITNESS:       Do you have -- I have got to  
14   be at the legislature at 2:00.  Do you have a few  
15   questions I can answer or is it going to be a lot?

16          MR. TORREY:        We could do a few.

17          MS. BLAKE:         We could do a few of them and  
18   we will hold it open.

19          THE WITNESS:       IF you could do a few and hold  
20   it open, I am happy to stay, because I am just walking  
21   somewhere down the street.

22          MR. TORREY:        Thank you very much, we  
23   appreciate that.

24          MS. BLAKE:         We appreciate that, yes.  And  
25   we don't even need to rearrange.  If you have trouble

1 hearing me, let me know.

2 D I R E C T E X A M I N A T I O N 1:31 P.M.

3 BY MS. BLAKE:

4 Q. My name is Myra Blake, and I am an attorney  
5 for conservation groups in this matter. I would like to  
6 have you turn back to Exhibits 303 and 304 -- or we will  
7 start with Exhibit 303.

8 (Witness peruses document.)

9 A. Thank you. 303?

10 Q. Actually, let's start with Exhibit 304.

11 A. Okay.

12 Q. And this is the Excel spreadsheet that you  
13 walked through that you went through line-by-line  
14 earlier. Were there any levels of hexavalent chromium  
15 reported in any of these wells that were as high as the  
16 level that have been detected around coal ash ponds in  
17 North Carolina?

18 MR. ROSSER: Objection.

19 THE WITNESS: I don't know the answer to  
20 that.

21 BY MS. BLAKE:

22 Q. Did you see any levels of hexavalent chromium  
23 in the spreadsheet as high as 20 parts per billion, do  
24 you recall?

25 A. No.

1 Q. And I would like to introduce one more  
2 exhibit. This is going to be Exhibit ---

3 THE REPORTER: 309.

4 MS. BLAKE: 309.

5 (PLAINTIFF-INTERVENORS EXHIBIT 309  
6 WAS MARKED FOR IDENTIFICATION.)

7 THE WITNESS: Thank you.

8 BY MS. BLAKE:

9 Q. And this is a water quality report for  
10 Winston-Salem Forsythe County Utilities Commission?

11 A. Yes, ma'am.

12 Q. And if you turn to the back page, under  
13 the ---

14 MR. ROSSER: Can I get a copy of that?

15 MS. BLAKE: We must have handed them all  
16 out. We will get you an electronic copy.

17 BY MS. BLAKE:

18 Q. Do you see the hexavalent chromium listed  
19 about halfway through the columns at the top?

20 A. Yes, ma'am.

21 Q. And what is the level detected for hexavalent  
22 chromium in this Exhibit?

23 A. .07 average level detected.

24 Q. Okay. And is that higher than the standard?

25 A. It is the same as the standard.

1 Q. I would like to hand you a document to be  
2 marked as Exhibit 310.

3 MS. LeVEAUX: So we are going to have you  
4 give us copies, too, because we are pretty short all the  
5 way around.

6 MS. BLAKE: Absolutely.

7 MS. LeVEAUX: Thank you.

8 (PLAINTIFF-INTERVENORS EXHIBIT 310  
9 WAS MARKED FOR IDENTIFICATION.)

10 BY MS. BLAKE:

11 Q. And does this appear to be a water quality  
12 report for the City of Durham?

13 A. Yes, ma'am.

14 Q. And if you could turn to page 9 and take a  
15 look at the hexavalent chromium levels listed on that  
16 page?

17 (Witness peruses document.)

18 A. Yes, ma'am.

19 Q. And did any of them exceed the health standard  
20 of .07?

21 A. No, ma'am.

22 Q. Are you familiar with the International Agency  
23 for Research on Cancer?

24 A. Not overly familiar, no.

25 Q. Are you aware that they have identified

1 vanadium as a possible carcinogen?

2 A. As I referenced earlier, I have seen one  
3 reference to breast cancer, but I could not find any  
4 documentation for that -- for vanadium, right?

5 Q. Correct.

6 A. Okay. Yes, that is my answer.

7 Q. And did you review the materials put out by  
8 the International Agency for Research on Cancer in any of  
9 your review of vanadium?

10 A. Evidently not.

11 Q. Okay. If you could please turn back to  
12 Exhibit 306.

13 (Witness peruses document.)

14 And this is the toxicological review of  
15 hexavalent chromium that Mr. Rosser was asking you about  
16 earlier.

17 (Document handed to witness.)

18 A. Thank you.

19 Q. Can EPA prevent North Carolina from taking  
20 into account the latest studies on hexavalent chromium?

21 A. I don't know the answer to that.

22 Q. You aren't aware of any authority the EPA has  
23 to prohibit North Carolina from looking at any studies on  
24 hexavalent chromium?

25 MR. ROSSER: Object to form.

1 THE WITNESS: I am just not familiar with  
2 the laws around that. I am sorry.

3 BY MS. BLAKE:

4 Q. And the Cancer Slope Factor that resulted in  
5 the .07 parts per billion health standard for hexavalent  
6 chromium was vetted with the Center for Disease Control,  
7 is that right?

8 MS. LeVEAUX: Objection.

9 MR. ROBBINS: Objection.

10 THE WITNESS: My understanding was was that  
11 the process they used, they validated.

12 BY MS. BLAKE:

13 Q. And it was also vetted with the Department of  
14 Environmental Quality?

15 MR. ROSSER: Objection.

16 MS. LeVEAUX: Objection.

17 MR. ROBBINS: Objection.

18 THE WITNESS: I am just not -- I don't know  
19 that.

20 BY MS. BLAKE:

21 Q. Did the Department of Environmental Quality  
22 approve the .07 standard?

23 MR. ROSSER: Objection.

24 MR. ROBBINS: Objection.

25 MR. BARKLEY: Objection.

1 THE WITNESS: Yes, ma'am.

2 BY MS. BLAKE:

3 Q. And they approved the Cancer Slope Factor that  
4 it was based on?

5 MR. ROSSER: Objection.

6 MS. LeVEAUX: Same.

7 MR. ROBBINS: Objection.

8 MR. BARKLEY: Objection.

9 THE WITNESS: That is my understanding.

10 BY MS. BLAKE:

11 Q. And did the Department of Environmental  
12 Quality do its own review of the literature and develop  
13 their own Cancer Slope Factor?

14 MR. ROSSER: Objection.

15 MS. LeVEAUX: Objection.

16 MR. ROBBINS: Objection.

17 THE WITNESS: Well again, I don't mean to --  
18 you know, I wasn't here then, and so I just have to tell  
19 you that there are people who can answer that better than  
20 me. So I am a little bit -- I am probably speaking from  
21 a perspective of thinking things are true but not knowing  
22 they are true, so I probably shouldn't weigh in on that.  
23 There are people who can answer that better than me who  
24 were here.

25 BY MS. BLAKE:



1 Q. Okay. And then if you could take a quick look  
2 at Exhibit 289, and turn to the second page of that  
3 exhibit.

4 (Witness peruses document.)

5 And Mr. Rosser had you read a sentence in the  
6 paragraph -- the first full paragraph on that page.

7 A. Yes, ma'am.

8 Q. Could you read the second sentence that  
9 follows that sentence that starts with, "New health  
10 effects information"?

11 A. I am ---

12 Q. On the second page of that.

13 A. Oh, I am sorry. Okay. The second page?

14 Q. First full paragraph, the second sentence.

15 A. "New health effects information has become  
16 available since the original standard was set, and EPA  
17 is reviewing this information to determine whether there  
18 are new health risks that need to be addressed."

19 Q. And so, as we discussed earlier, the total  
20 chromium standard the EPA developed does not take into  
21 account the cancer causing effects of hexavalent  
22 chromium?

23 MR. ROSSER: Objection to the form.

24 MS. LeVEAUX: Objection.

25 MR. ROBBINS: Objection.

1 MR. BARKLEY: Objection.

2 THE WITNESS: Well, my only point to that  
3 is, is that they have had at least eight years, if not  
4 longer, to revisit that. So it is not like it has been a  
5 static issue where they set it a long time ago and  
6 haven't had the chance to re-think it. They are aware of  
7 these issues and have been at least since 2008, if not  
8 longer.

9 BY MS. BLAKE:

10 Q. Do you know why they have not revised the  
11 standard yet, despite having new information, for that  
12 amount of time?

13 MR. ROSSER: Objection.

14 MS. LeVEAUX: Objection.

15 MR. ROBBINS: Objection.

16 THE WITNESS: I am not conversant on those  
17 reasons.

18 BY MS. BLAKE:

19 Q. And would those reasons be important in  
20 deciding whether to wait for EPA or not?

21 MS. LeVEAUX: Objection.

22 MR. ROBBINS: Objection.

23 THE WITNESS: I think it just -- it may be  
24 beyond our ability to assess why the EPA is taking so  
25 long. I am not sure we have the investigative capacity

1 to understand that.

2 BY MS. BLAKE:

3 Q. Have you asked EPA?

4 A. I talked to the EPA and asked them when they  
5 would have their findings, and they said December. That  
6 was the extent of that conversation.

7 Q. And so you didn't inquire about why EPA has  
8 not been able to come up with a new standard ---

9 A. (Interposing) I did not.

10 Q. --- despite the fact that the information is  
11 available?

12 MS. LeVEAUX: Objection.

13 MR. ROBBINS: Objection.

14 MR. BARKLEY: Objection.

15 THE WITNESS: I did not.

16 BY MS. BLAKE:

17 Q. And one last thing. On Exhibit 301, if you  
18 turn to page 15.

19 (Witness peruses document.)

20 A. Yes, ma'am.

21 Q. And if you look at the Alabama standard for  
22 vanadium?

23 A. Yes, ma'am.

24 Q. And what is that standard?

25 A. 3.6 parts per billion.

1 Q. And are there levels of vanadium that have  
2 been detected near coal ash sites in North Carolina that  
3 are higher than 3.6 parts per billion of vanadium?

4 MR. ROSSER: Objection to the form.

5 THE WITNESS: Yes, ma'am. I believe so.

6 BY MS. BLAKE:

7 Q. And I heard you say earlier on that you -- in  
8 one of your early debriefings at DHHS, that you had been  
9 told that one of your primary roles was to lead, is that  
10 correct?

11 A. Yes, ma'am.

12 Q. And was North Carolina acting as a leader when  
13 they sent out the "do not drink" letters to residents  
14 informing them of their health risk from drinking well  
15 water?

16 MR. ROSSER: Objection to the form.

17 MS. LeVEAUX: Objection.

18 MR. ROBBINS: Objection.

19 MR. BARKLEY: Objection.

20 THE WITNESS: Well, we clearly were, other  
21 than California, the first state to weigh in on those  
22 recommendations.

23 BY MS. BLAKE:

24 Q. And does acting as the leader sometimes mean  
25 doing something, even if neighboring states have not

1 caught up yet?

2 MR. ROSSER: Objection to the form.

3 MS. LeVEAUX: Objection.

4 MR. ROBBINS: Objection.

5 MR. BARKLEY: Objection.

6 THE WITNESS: Well again, I think that in  
7 any policy, certainly, to be innovative is -- is  
8 reasonable. But I guess I would also say that, as you do  
9 that, you look to see what the intended consequences are  
10 and what the unintended consequences are, and to see  
11 where you peers are in that. And in this case, our peers  
12 clearly have not, in the other 49 states, changed their  
13 recommendations, nor has the federal government  
14 accelerated theirs. And also, I think when you have some  
15 unintended consequences, it is the appropriate thing to  
16 do to rethink it.

17 MR. BARKLEY: And I think that needs to ---

18 MR. ROSSER: And I -- I have 10 seconds. I  
19 will ask two questions and that is it. They are "yes" or  
20 "no" questions.

21 REDIRECT EXAMINATION 1:44 P.M.

22 BY MR. ROSSER:

23 Q. Ms. Blake mentioned one well with a level of  
24 20 parts per billion, do you remember her saying that?

25 A. Uh-huh, right.

1           Q.    Are you aware of any other wells that have  
2           levels that are that high?

3           A.    No.

4           Q.    And you agreed to retest that well, correct --  
5           or you are recommending that it be retested, correct?

6           A.    Well, we are going to re -- change our policy  
7           on that.  That is considered to be chromium, which the  
8           groundwater standard is for 10.  And you consider all of  
9           that can be hexavalent chromium.  We are going to issue  
10          the "do not drinks" or make sure they stay in place, and  
11          then we would encourage them to retest.  And we are going  
12          to do that by personal communication.

13               MR. ROSSER:       Thank you.

14               MS. BLAKE:        Thank you very much.

15               MS. LeVEAUX:     Thank you, Dr. Williams.

16               MR. TORREY:      We are holding it open, so ---

17               (THE DEPOSITION WAS ADJOURNED AT 1:44 P.M. TO  
18               RECONVENE AT A LATER UNSPECIFIED DATE AND  
19               TIME.)

S I G N A T U R E

I HAVE READ THE FOREGOING PAGES 8 TO 278 WHICH CONTAIN A CORRECT TRANSCRIPT OF THE ANSWERS MADE TO THE QUESTIONS HEREIN RECORDED. MY SIGNATURE IS SUBJECT TO CORRECTIONS ON ATTACHED ERRATA SHEET, IF ANY.

\_\_\_\_\_  
(SIGNATURE OF RANDALL W. WILLIAMS, M.D.)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I CERTIFY THAT THE FOLLOWING PERSON PERSONALLY APPEARED BEFORE ME THIS DAY, AND I HAVE PERSONAL KNOWLEDGE OF THE IDENTITY OF THE PRINCIPAL OR HAVE SEEN SATISFACTORY EVIDENCE OF THE PRINCIPAL'S IDENTITY, OR A CREDIBLE WITNESS KNOWN TO ME HAS SWORN TO THE IDENTITY OF THE PRINCIPAL, ACKNOWLEDGING TO ME THAT HE OR SHE VOLUNTARILY SIGNED THE FOREGOING DOCUMENT FOR THE PURPOSE STATED HEREIN AND IN THE CAPACITY INDICATED:

\_\_\_\_\_  
(NAME OF PRINCIPAL)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(SIGNATURE OF NOTARY)

(OFFICIAL SEAL)

\_\_\_\_\_  
(NOTARY'S PRINTED NAME)

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I, MICHAEL B. CARTER, NOTARY/REPORTER, DO CERTIFY THAT THE FOREGOING TRANSCRIPT WAS DELIVERED TO THE WITNESS EITHER DIRECTLY OR THROUGH THE WITNESS' ATTORNEY OR THROUGH THE ATTORNEY RETAINING THE WITNESS ON \_\_\_\_\_, AND THAT AS OF THIS DATE, I HAVE NOT RECEIVED THE EXECUTED SIGNATURE PAGE OR ERRATA SHEET.

THEREFORE, MORE THAN 30 DAYS HAVING ELAPSED SINCE THE RECEIPT OF THE TRANSCRIPT BY THE WITNESS, THE SEALED ORIGINAL TRANSCRIPT IS HEREBY FILED WITH THE ORDERING ATTORNEY BY MEANS OF PRIORITY MAIL, IN ACCORDANCE WITH THE NORTH CAROLINA RULES OF CIVIL PROCEDURE.

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
MICHAEL B. CARTER, NOTARY/REPORTER  
NOTARY NUMBER 19960030065  
MY COMMISSION EXPIRES FEBRUARY 15, 2021

STATE OF NORTH CAROLINA

COUNTY OF NASH

C E R T I F I C A T E

I, MICHAEL B. CARTER, NOTARY PUBLIC-REPORTER, DO  
HEREBY CERTIFY THAT RANDALL W. WILLIAMS, M.D. WAS DULY  
SWORN BY ME PRIOR TO THE TAKING OF THE FOREGOING  
DEPOSITION, THAT THE IDENTITY OF THE WITNESS WAS VERIFIED,  
THAT SAID DEPOSITION WAS TAKEN BY ME AND TRANSCRIBED UNDER  
MY DIRECTION, AND THAT THE FOREGOING PAGES 8 THROUGH 278  
CONSTITUTE A TRUE AND CORRECT TRANSCRIPT OF THE TESTIMONY  
OF THE WITNESS.

I DO FURTHER CERTIFY THAT I AM NOT COUNSEL FOR  
OR IN THE EMPLOYMENT OF ANY OF THE PARTIES TO THIS ACTION,  
NOR AM I INTERESTED IN THE RESULTS OF THIS ACTION.

I DO FURTHER CERTIFY THAT THE STIPULATIONS  
CONTAINED HEREIN WERE ENTERED INTO BY COUNSEL IN MY  
PRESENCE.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND  
THIS 26TH DAY OF MAY, 2016.

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MICHAEL B. CARTER  
NOTARY PUBLIC FOR THE  
STATE OF NORTH CAROLINA  
NOTARY NUMBER 19960030065  
MY COMMISSION EXPIRES  
FEBRUARY 15, 2021