

PLACE: Held via Videoconference

DATE: Tuesday, September 8, 2020

TIME: 9:00 A.M. - 12:28 P.M.

DOCKET NO.: E-7, Sub 1214

E-7, Sub 1213

E-7, Sub 1187

BEFORE: Chair Charlotte A. Mitchell, Presiding

Commissioner Tolola D. Brown-Blair

Commissioner Lyons Gray

Commissioner Daniel G. Clodfelter

Commissioner Kimberly W. Duffley

Commissioner Jeffrey A. Hughes

Commissioner Floyd B. McKissick, Jr.

IN THE MATTER OF:

DOCKET NO. E-7, SUB 1214

Application of Duke Energy Carolinas, LLC,  
for Adjustment of Rates and Charges Applicable to  
Electric Utility Service in North Carolina

DOCKET NO. E-7, SUB 1213

Petition of Duke Energy Carolinas, LLC,  
for Approval of Prepaid Advantage Program

DOCKET NO. E-7, SUB 1187

Application of Duke Energy Carolinas, LLC,  
for an Accounting Order to Defer Incremental Storm  
Damage Expenses Incurred as a Result of Hurricanes  
Florence and Michael and Winter Storm Diego

VOLUME 14

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

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## E X H I B I T S

## I D E N T I F I E D / A D M I T T E D

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P R O C E E D I N G S

CHAIR MITCHELL: All right. Good morning, everyone, it's 9:00. Let's go on the record, please.

Ms. Bednarcik, I will remind you that you are under oath.

And, Ms. Townsend, we are with you.

MR. MARZO: Chair Mitchell, this is Brandon Marzo; can you hear me?

CHAIR MITCHELL: Yes. Mr. Marzo, you can proceed.

MR. MARZO: Chair Mitchell, I just wanted to reconfirm, because I got a question from at least one party regarding Ms. Bednarcik's testimony, that she is appearing on direct right now and will return for rebuttal and supplemental in the second part of this proceeding.

CHAIR MITCHELL: That is correct. The Company has reserved the right to recall her on rebuttal, and she is appearing at this point in time for her direct.

All right. Any additional preliminary matters?

(No response.)

1 CHAIR MITCHELL: All right. Hearing  
2 none, Ms. Townsend, you may proceed.

3 MS. TOWNSEND: Thank you,  
4 Chair Mitchell.

5 Whereupon,

6 JESSICA L. BEDNARCIK,  
7 having previously been duly affirmed, was examined  
8 and continued testifying as follows:

9 CONTINUED CROSS EXAMINATION BY MS. TOWNSEND:

10 Q. On Friday, Ms. Bednarci k, which seems a long  
11 time ago, we were talking about Mr. Hart's Exhibit 48,  
12 so if you could get that back in front of you. And  
13 that is a July 2019 Allen environmental audit in  
14 support of the court-appointed monitor in the federal  
15 criminal case.

16 A. I have Mr. Hart's Exhibit 48 in front of me  
17 now.

18 Q. Thank you very much. And we talked briefly  
19 about the fact that the CAM report came about because  
20 of Duke being on probation in that federal criminal  
21 case, correct?

22 A. As part of our plea agreement, yes, the  
23 court-appointed monitor conducted audits at all of our  
24 facilities.

1 Q. All right. And that ended, since the federal  
2 case was -- can't talk -- May of 2015, it ended in  
3 May of 2020, the probation, correct?

4 A. That is correct.

5 Q. If you'll go to page 1-12, we are going to  
6 turn to the subject of wells. Are you with me?

7 A. I am on page 1-12.

8 Q. Okay. According to that report, it says  
9 that -- at the very last full paragraph, the last --  
10 third to the last line, it says:

11 "The Allen facility CAMA groundwater  
12 monitoring network consists of sampling 33 wells  
13 quarterly and 103 wells semi annually beginning the  
14 first quarter of 2019"; is that correct?

15 A. That is what it states specifically on the  
16 CAMA groundwater monitoring network, yes.

17 Q. Is that your understanding of the CAMA  
18 monitoring network?

19 A. Based upon what I'm reading in this document,  
20 that that's when the CAMA groundwater monitoring  
21 network began, the first quarter of 2019. But  
22 Mr. Wells, who is coming up later on in the hearing,  
23 also has a good knowledge of the groundwater systems at  
24 all of our plants, so he can also answer questions

1 related to groundwater monitoring.

2 Q. Thank you. But, in the meantime while I have  
3 you, can you tell me how many monitoring wells were in  
4 place before this requirement in 2019 came into  
5 existence?

6 A. Ms. Townsend, I don't have that number in  
7 front of me. Mr. Wells knows about the history of our  
8 groundwater monitoring at all of our sites, and that  
9 would be a better question that he would be able to  
10 answer. I do not have that information in front of me.

11 Q. So you don't know if this requirement  
12 required the Company to put in 136 wells by 2019?

13 A. Ms. Townsend, I do know that, as part of the  
14 CAM -- or excuse me, the CAMA, North Carolina CAMA,  
15 Coal Ash Management Act, that there was a significant  
16 number of wells that were put in in response to the  
17 passage of the Coal Ash Management Act, and also a  
18 significant number of wells that were installed as part  
19 of the federal CCR rule related to our groundwater  
20 monitoring. So with the passage of both those rules,  
21 there was a significant number of wells that were  
22 required to meet the requirements of those rules.

23 Q. All right. In fact, if you would turn to AGO  
24 Prefiled Cross Exhibit 25, which is the DEC's response

1 to the AGO Data Request 2-1.

2 A. Ms. Townsend, can you could give me that  
3 number again, please?

4 Q. Yes. 25.

5 CHAIR MITCHELL: Ms. Townsend, I'm going  
6 to interrupt you here. This document is indicated  
7 as being confidential. Is that actually the case?

8 MS. TOWNSEND: No. We determined -- we  
9 spoke with the Company, and they gave us clearance  
10 that this is no longer confidential.

11 CHAIR MITCHELL: Okay. Well, as it is,  
12 at least the copy I am looking at is marked  
13 confidential. I'd just like confirmation from the  
14 Company that that is, in fact, the case.

15 MS. TOWNSEND: I believe Mr. Mehta and I  
16 were the ones that discussed the confidentiality  
17 part of that. Mr. Mehta?

18 MR. MEHTA: Chair Mitchell, that is, in  
19 fact, the case.

20 CHAIR MITCHELL: Okay. Well,  
21 Ms. Townsend, let's go ahead and mark the document.  
22 And I would like the record to clearly reflect that  
23 the document is not confidential. So let's go  
24 ahead and mark it, please, ma'am.

1 MS. TOWNSEND: Yes. If we could mark  
2 that exhibit as AGO Bednarci k Direct Cross Exhibit  
3 Number 1.

4 CHAIR MITCHELL: All right. The  
5 document will be so marked. And again, for  
6 purposes of the record, the document is not  
7 confidential.

8 MS. TOWNSEND: Thank you.

9 (AGO Bednarci k Direct Cross Exhibit  
10 Number 1 was marked for identification.)

11 Q. Ms. Bednarci k, if you will turn to page 11 of  
12 that document.

13 (Pause.)

14 THE WITNESS: Ms. Townsend, I think I am  
15 on page 11. This data request has lots of  
16 attachments with it, so if you could describe the  
17 page just to make sure I'm on the correct page that  
18 you're looking at.

19 Q. Right. Actually, it had page numbers on it.  
20 Page 11 and 12 at the very top, and it's a table which  
21 shows program, site, location, number of wells,  
22 sampling frequency, and months sampled; do you see that  
23 table?

24 A. Yes, I am on that table. Thank you.



1 Q. And if we would go -- I will tell you that  
2 the tabs did not come across, but page 11 is the 2018  
3 groundwater monitoring, and the page 12 is the 2019  
4 groundwater monitoring. Okay.

5 Going to page 12 -- 11, and if you look at  
6 Allen under CAMA, and Allen is the -- acronym is ALN,  
7 and it shows that there are 125 wells in 2018; is that  
8 correct?

9 A. That is correct.

10 Q. All right. And then if we go to 2019, we see  
11 that, for CAMA, there are 103 under semi annual and 33  
12 under quarterly, correct? I know it's very small  
13 print, I apologize. Do you see?

14 A. So on page 12 of 12, it does show, for CAMA  
15 for Allen, 103 for semi annually and 33 for quarterly.

16 Q. All right. So that would be the 136 wells  
17 that the CAM report talks about, correct?

18 A. It appears so, yes.

19 Q. All right. Now, the requirement to establish  
20 the CAMA groundwater monitoring network is not based on  
21 an exceedance or a violation, but it's part of the  
22 general requirement of CAMA; is that correct?

23 A. That is my understanding of the Coal Ash  
24 Management Act and the groundwater monitoring

1 requirements for CAMA, yes.

2 Q. Okay. Do you know who determined the number  
3 of wells needed for the CAMA groundwater network?

4 A. Well, Mr. Wells may be able to answer  
5 specifically. My understanding with CAMA is that the  
6 Company worked with the North Carolina Department of  
7 Environmental Quality on the number of wells and where  
8 their location would be, as well as where they would  
9 be, whether it's a shallow well, or a deep well, or a  
10 midrange well. So my understanding is that the numbers  
11 changed as we have gone through the program based upon  
12 communications with DEQ.

13 Q. Okay. And what is your understanding as to  
14 why more than 100 wells were needed for the CAMA  
15 network at Allen?

16 A. So again, Mr. Wells would be able to answer  
17 probably a little bit more than I could. My  
18 understanding, though, is that the wells were --  
19 additional wells were required by NCDEQ as we were  
20 looking at the monitoring well network, make sure that  
21 the state and the Company had a good picture for  
22 modeling efforts, a good picture of the groundwater --  
23 state of the groundwater at that site. But  
24 specifically why each individual well was needed, that

1 would be a question of going back and forth with NCDEQ.

2 Q. Okay. So it would appear that, prior to  
3 2019, DEQ did not feel there was a good picture of what  
4 the groundwater monitoring was at Allen; is that  
5 correct?

6 A. So I do not know what the North Carolina  
7 Department of Environmental Quality's thoughts were  
8 prior to 2019. I only know that, as part of meeting  
9 the requirements of the Coal Ash Management Act, that  
10 this is the process to meet those requirements.  
11 Working with the state agency, these were the wells  
12 that they asked us to install and we did install.

13 Q. Okay. Do you know what the approximate costs  
14 were of installing these wells?

15 A. I do know that the Company has provided, as  
16 part of this case, a breakdown per site and breakdown  
17 by category of related -- and one of the categories is  
18 groundwater monitoring. I do not know, other than what  
19 would be in that one line item for groundwater  
20 monitoring, which includes installation as well as  
21 monitoring, but I don't have in front of me the  
22 specific cost to install each and every well at the  
23 site.

24 Q. Do you have an approximate cost?

1 A. I do not, not as I sit here today.

2 Q. All right. Returning to the CAM report on  
3 page 1-4 -- 1-14.

4 A. Ms. Townsend, I closed that one. Let me make  
5 sure, it was 48?

6 Q. 48, that's correct. You might as well keep  
7 that one open for a little while, please.

8 A. (Witness peruses document.)

9 I am on page 1-14.

10 Q. Great. And if you will look at -- there's a  
11 provision, CCR rule, and the second paragraph talks  
12 about the fact that the multiunit CCR groundwater  
13 monitoring network consists of 48 CCR monitoring wells,  
14 including four background wells, and you're currently  
15 sampling an additional 24 monitoring wells to assist in  
16 the CCR characterization.

17 Can you tell me whether or not those 48  
18 wells, or 72 if we add the additional ones, are the  
19 same wells that are being used for the CAMA network?

20 A. So again, I don't have the exact -- each and  
21 every well in front of me. Just reading what's on the  
22 page and what I know from talking with the teams that  
23 are doing the groundwater monitoring. In some cases we  
24 are able to utilize wells for both CAMA and CCR and

1       some wells we cannot, depending upon the specific  
2       requirements of groundwater monitoring that's required  
3       in CAMA and CCR.

4               So where we can, we do utilize the well in  
5       both locations, but in some cases we cannot to meet the  
6       requirements of both the areas. But I do not have in  
7       front of me the number that served both or the number  
8       that only served one.

9               Q.     Okay. Do you know when DEC was required to  
10       establish the CCR groundwater monitoring network at  
11       Allen?

12              A.     So the federal CCR rule was passed, I think  
13       it became effective in October of 2015, if -- I'm going  
14       off of memory. And I think it was originally published  
15       in the April time frame. So the requirements under the  
16       CCR rule would have come with the passage of the CCR  
17       rule.

18              Q.     Okay. In reference to the CCR rule, who  
19       determined the number of wells required to be monitored  
20       at Allen?

21              A.     So with the CCR rule, we do have a number of  
22       subject matter experts who are well-versed in the CCR  
23       rules in specific areas, especially on the groundwater.  
24       So it was working with understanding what the rule

1 requirements are. And then also working with the state  
2 agencies, because the information also goes -- as far  
3 as I understand, goes to the state agencies.

4 But specifically on the number of wells  
5 required for the CCR rule, I think that would be a  
6 better question for Mr. Wells specifically on those.

7 Q. Do you know where the data from the CCR  
8 groundwater monitoring network is sent?

9 A. My understanding is that the CCR data is also  
10 sent to the North Carolina Department of Environmental  
11 Quality, but that would be best double-checked with  
12 Mr. Wells. It is also posted on our public website  
13 because it is a requirement under the CCR rule to do  
14 postings and make it publicly available.

15 Q. Okay. And there is a general requirement  
16 under CCR to have a -- what they call detection  
17 groundwater monitoring network; is that correct?

18 A. Yes, that is my understanding.

19 Q. It would appear, then, that both DEQ and the  
20 federal rules requirement for these groundwater  
21 monitoring networks found the groundwater monitoring  
22 being done at Allen insufficient; would that be  
23 accurate?

24 A. So, Ms. Townsend, how I would characterize it

1 is that the North Carolina CAMA act, and as well as the  
2 CCR requirement, CCR rule had additional requirements,  
3 specific requirements related to those regulations  
4 specifically on groundwater monitoring. And the wells  
5 that we installed and the monitoring that we're doing  
6 is specifically related to the requirements of those  
7 two acts.

8 Q. Okay. If I could turn you to AGO Prefiled  
9 Cross Exhibit 27, which is labeled as groundwater  
10 monitoring requirements of the CCR rule.

11 A. I have that exhibit in front of me.

12 Q. All right. Just waiting for Chair Mitchell.

13 MR. MARZO: Chair Mitchell, not an  
14 objection, just for efficiency purposes, I just  
15 want to reiterate that, as the Commission is well  
16 aware, Mr. Wells will be testifying in the rebuttal  
17 phase of this case. And I think some of these  
18 questions are questions that are better asked to  
19 Mr. Wells. So I just raise that so the parties  
20 know as well as Ms. Townsend.

21 CHAIR MITCHELL: All right. Thank you,  
22 Mr. Marzo, we'll let Ms. Townsend continue  
23 recognizing -- and if the witness -- if the witness  
24 feels that Mr. Wells is better suited to answer the

1 question, she may so indicate.

2 Ms. Townsend, let's go ahead and get  
3 this document marked, please, ma'am.

4 MS. TOWNSEND: Yes. If we could mark  
5 that as exhibit AGO Bednarci k Direct Cross Exhibit  
6 Number 2.

7 CHAIR MITCHELL: All right. It will be  
8 so marked.

9 MS. TOWNSEND: Thank you.

10 (AGO Bednarci k Direct Cross Exhibit  
11 Number 2 was marked for identification.)

12 Q. According to this exhibit, if you'll turn to  
13 page 6, Ms. Bednarci k, it's under -- it's not --  
14 unfortunately, not numbered, but it's under a --  
15 something that's called "what's next," and then they  
16 talk about detection groundwater monitoring initial  
17 phase.

18 Do you see where I am?

19 A. I am on that page.

20 Q. Thank you. The last full paragraph there  
21 talks about the Appendix 3 constituents, which are  
22 considered by EPA to be the leading indicators of  
23 whether constituents are migrating from a CCR unit,  
24 correct?



1 A. Correct.

2 Q. Okay. And those are boron, calcium,  
3 chloride, fluoride, pH, sulfate, and total dissolved  
4 solids, correct?

5 A. According to this document, those are  
6 constituents that are included in the Appendix 3.

7 Q. All right. And according to the CCR rule, if  
8 you'll begin on page 6 and 7, it talks about the --  
9 after completion of the sampling analysis of the  
10 detection monitoring phase, EPA interprets the  
11 regulations to mean that the first statistical  
12 evaluation is to be completed no later than  
13 October 17, 2017 for Appendix 3 for statistically  
14 significant increases over background concentration for  
15 each constituent in every downgradient well. If there  
16 is an SSI for any constituent in any well, the site  
17 must then begin assessment monitoring within 90 days.

18 Does DEC have to do any assessment  
19 monitoring?

20 A. Yes, we do.

21 Q. All right. And the constituents that are  
22 looked for are under Appendix 4, which are shown on  
23 that Table 1 on page 7 of Bednarcik Direct Exhibit  
24 Number 2, correct?

1           A.     I do see that Table 1, it lists Appendix 4  
2 constituents for assessment monitoring.

3           Q.     Okay. And if you will go back to the CAM  
4 report on page 1-14.

5           A.     I have 1-14 in front of me again.

6           Q.     Okay. It says that, on December 14th, Duke  
7 Energy provided notice. As you indicated, they have to  
8 provide notice on the website for certain things. And  
9 on this occasion, they filed notice that the following  
10 CCR rule Appendix 4 constituents were detected at  
11 levels above the applicable groundwater protection  
12 standard; do you see that?

13          A.     I do see where that's written in the  
14 document.

15          Q.     All right. And on 1-15, it actually lists  
16 what those constituents were for the active ash basin,  
17 the retired ash basin, and the retired ash basin  
18 landfill. And there's arsenic, beryllium, cadmium,  
19 cobalt, lithium, and thallium. And that was on  
20 December 14, 2018; is that correct?

21          A.     So it appears that on the 14th is when we  
22 posted notice related to the Appendix 4 constituents.

23          Q.     All right. So in addition to detection  
24 monitoring, which is required as the general standard

1 requirement, DEC is also doing the assessment  
2 monitoring, which I assume requires more sampling and  
3 more often; would that be accurate?

4 A. So the specific requirements for groundwater  
5 monitoring as it relates to the CCR or the frequency,  
6 Mr. Wells would be able to answer that. But it does --  
7 my understanding is that the CCR rule and CAMA clearly  
8 lay out what the requirements are for groundwater  
9 monitoring, and, of course, we would meet those  
10 requirements.

11 Q. All right. And based on our earlier  
12 discussion on Friday, and as identified in the  
13 insurance complaint, three of those constituents that  
14 were found to be detected at levels above the  
15 applicable groundwater monitoring protection standards  
16 were arsenic, cadmium, and thallium, and these are all  
17 constituents of coal ash that Duke Energy has  
18 acknowledged may be hazardous in sufficient quantities  
19 or concentrations, correct?

20 A. So I do not have the insurance one memorized  
21 or in front of me, but that sounds like -- I believe  
22 the insurance document did include those. And you did  
23 really state one thing that "may," and it really  
24 depends on the concentration and also on the receptors.

1 And as far as I know -- and again, Mr. Wells will be  
2 able to talk about this -- we have not found any  
3 receptions to human health related to our groundwater  
4 impacts.

5 Q. All right. If you will turn now to AGO  
6 Prefiled Cross Exhibit 17, which is labeled as Allen's  
7 DEQ CCR Service Impoundment Closure Determination.

8 A. I have that document in front of me.

9 Q. All right.

10 MS. TOWNSEND: Chair Mitchell, we would  
11 like to mark that exhibit as AGO Bednarci k Direct  
12 Cross Exhibit Number 3.

13 CHAIR MITCHELL: All right,  
14 Ms. Townsend, it will be so marked.

15 MS. TOWNSEND: Thank you.

16 (AGO Bednarci k Direct Cross Exhibit  
17 Number 3 was marked for identification.)

18 Q. If you would turn to page 10 of that  
19 document, Ms. Bednarci k, it would appear that DEQ also  
20 discovered contaminants in 2018 and 2019. And if  
21 you'll read at the very top -- well, it says, "The  
22 tables below summarize the results of the model  
23 simulations." But it talks about the boron  
24 concentrations depicted in each table represent the

1 maximum boron concentrations in any layer, and then --  
2 of the model. And then they talk about the  
3 4,300-foot-wide contamination plume depicted in the  
4 table spans the entire length of both ash basins, the  
5 retired ash basin, and the active ash basin; is that  
6 what it says?

7 A. That is what it says.

8 Q. All right.

9 MR. MEHTA: Ms. Townsend, this is  
10 Kiran Mehta, could you give me the AGO exhibit  
11 number again?

12 MS. TOWNSEND: Yes. That was 17.

13 MR. MEHTA: Thank you.

14 MS. TOWNSEND: You're welcome.

15 Q. To your knowledge, Ms. Bednarcik, was coal  
16 ash the only waste stream that was disposed at the  
17 Allen coal ash plant?

18 A. My understanding is that there were other  
19 streams that were permitted for discharge into the  
20 basins that were from the operations of the plant. So  
21 some was wash-down water, some was from the boiler  
22 wash-down, and also some at FGD streams.

23 Q. All right. In fact, if you would go -- if  
24 you would look at Mr. Hart's testimony, if you have

1       that with you.

2           A.     I do. I have multiple binders with  
3       Mr. Hart's testimony, so if you tell me which one, that  
4       would help.

5           Q.     It's on page 74 of his actual testimony.

6           A.     (Witness peruses document.)  
7                 I'm on page 74 of his testimony.

8           Q.     Thank you, Ms. Bednarcik. Looking at lines 2  
9       through 6, it indicates that, in addition to CCRs, as  
10      you indicated there were additional wastewaters. And  
11      he refers to them as pretreated domestic wastewater,  
12      stormwater from the coal pile area, miscellaneous  
13      stormwater flows, a yard drain sump, a water treatment  
14      filter backwash, metal cleaning waste, treated  
15      groundwater, laboratory waste, floor drain water,  
16      metal -- whoops, I think that's a repeat -- landfill  
17      leachate, and FGD wastewaters, correct?

18          A.     Yes, I see where that's stated there.

19          Q.     Okay. Thank you.

20                 In the Company's closure activities at Allen,  
21      how will each of these additional waste streams or  
22      materials be handled?

23          A.     So part of the North Carolina CAMA, as well  
24      as the federal CCR rule had us -- was -- there was

1 requirement to remove all waste streams from the basins  
2 by a date certain. And those waste streams will now be  
3 treated through on-site water treatment systems and  
4 will continue to go through our permitted discharge.

5 Q. Were those water systems available before?

6 A. Before what, Ms. Townsend?

7 Q. Before CAMA?

8 A. Yes, those treatment systems were available  
9 on the market prior to CAMA, but we were -- we had  
10 approval to utilize the ash basins in order to do  
11 treatment. And the discharge, the NPDES discharge was  
12 out from the basins. So the agency knew that these  
13 waste streams were being treated through the ash  
14 basins.

15 Q. But they chose to use the ash basins instead  
16 of the -- so there have been no new installations since  
17 CAMA came into existence and the CCR is being removed;  
18 is that correct?

19 A. I'm not quite sure what you're asking. If  
20 you could ask your question again, I would appreciate  
21 it.

22 Q. Sure. Under CAMA, I'm assuming that there's  
23 been some decanting and dewatering of the various ash  
24 basins at Allen. So when that happened, what happened

1 to where those had waste streams were going to go? You  
2 indicated that there were some other waste treatment  
3 facilities there. Were additional ones actually  
4 installed for the purpose of wastewater treatment?

5 A. So prior to the requirements of CAMA and CCR,  
6 waste streams were treated through the ash basins.  
7 They were used as a treatment system. And as I  
8 mentioned before, the discharge out of those ash basins  
9 was part of our permitted NPDES discharge. With CAMA  
10 and CCR coming about, there were requirements to remove  
11 flows to the basins, one for bottom ash, one for fly  
12 ash, one for all waste streams.

13 So the Company, over the last number of  
14 years, has been providing and doing projects at all of  
15 our sites in order to continue to maintain electricity  
16 usage. And for the sites that retired, also to remove  
17 those streams, for example, stormwater from the basin,  
18 and have set up water treatment systems as needed to  
19 handle those waste streams.

20 You mentioned also decanting and dewatering,  
21 and those still go through the permitted NPDES  
22 discharge, and where needed we install treatment  
23 systems for -- to be able to handle the material that  
24 is being decanted and dewatered from the ash basins,



1       themsel ves.

2           Q.       Thank you. Do you agree with Mr. Wells'  
3       position that manganese is a secondary constituent, and  
4       any exceedances beyond the 2L standards were simply  
5       background or naturally occurring at Allen?

6           A.       So Mr. Wells will be coming up. My  
7       understanding of manganese, I know it is naturally  
8       occurring in the North Carolina region, which is one of  
9       the reasons why we do background sampling. So I do  
10      agree that manganese is one of the items that we see in  
11      background.

12          Q.       All right. If you would turn to Mr. Hart's  
13      testimony, if you'll go to page 79.

14          A.       I am on page 79.

15          Q.       Thank you. And first, would you agree that  
16      the 2L groundwater standard for manganese is  
17      50 micrograms per liter?

18          A.       That is what Mr. Hart has in -- showing on  
19      line 3 and 4. And I don't have the 2L standards in  
20      front of me, but I have no -- subject to check, I would  
21      agree with him.

22          Q.       Thank you. So on the graph on page 79, that  
23      2L standard is shown as a red dash, correct?

24          A.       That appears to have the 2L standard as a red

1 dash, yes.

2 Q. All right. And it shows that two background  
3 wells, AB12-D and AB12-S, both fall below the 2L  
4 standard of 50 micrograms per liter; do they not?

5 A. For these two specific wells, that is what  
6 shows. But I do not know what other background wells  
7 Mr. Hart did not put on this. I believe that there are  
8 some additional background wells around the Allen  
9 station other than just these two wells.

10 MR. MARZO: Chair Mitchell, I'm going to  
11 object here. As Ms. Bednarcik has stated several  
12 times, Mr. Wells is the one who the Company has  
13 brought forward who can respond to these  
14 groundwater questions. I haven't objected to  
15 Ms. Townsend to this point, but if we're going to  
16 walk through Mr. Hart's testimony, simply read it  
17 and ask Ms. Bednarcik to just affirm that it says  
18 what it says, I just think that's an inefficient  
19 waste of time, Commissioners, and not appropriate.

20 CHAIR MITCHELL: All right.

21 Ms. Townsend, how do you respond?

22 MS. TOWNSEND: Well, Ms. Bednarcik has  
23 testified regarding every one of the facilities,  
24 and her knowledge of the facilities, and the costs

1 incurred in doing what needs to be done at those  
2 facilities. And certainly, if there are issues  
3 regarding contamination requiring additional monies  
4 being paid, then I believe that that information is  
5 vital to the Commission. And I think that going  
6 through the fact that they considered manganese not  
7 to be anything to worry about, and to discover  
8 that, in fact, it was of great concern, I think is  
9 important for the record.

10 CHAIR MITCHELL: All right.

11 Ms. Townsend, I'm going to let the questions --  
12 I'll let you proceed with your questions. You've  
13 heard Mr. Marzo and Ms. Bednarcik indicate the  
14 questions for which Mr. Wells is better suited to  
15 testify. Ms. Bednarcik, if you're not suited -- if  
16 Mr. Wells is better suited to answer one of  
17 Ms. Townsend's questions, please so indicate and we  
18 can move on.

19 All right, Ms. Townsend, please proceed.

20 MS. TOWNSEND: All right.

21 Q. If the other five wells that show  
22 concentrations at various times from 2004 to 2019 above  
23 the 50 micrograms per liter, correct? This graph shows  
24 that?

1           A.     Yes, Ms. Townsend, this graph -- the specific  
2           wells that Mr. Hart pulled out for this graph do show  
3           that. But, as I mentioned earlier, there are a number  
4           of additional wells, and locating these specific wells,  
5           I don't know by name exactly where they were around the  
6           basin, themselves.

7           Q.     So specifics of Mr. Wells, thank you.

8                     But looking at the graph, two wells, AB097 --  
9           09-S and AB10-S show high concentrations, one at more  
10          than 10,000 micrograms per liter, and the other at more  
11          than 1,000 micrograms per liter; is that correct?

12          A.     For those two specific wells that Mr. Hart  
13          shows on this graph, that is the concentrations that we  
14          saw out of those wells; but again, not knowing where  
15          they are in relationship to the basin: side gradient,  
16          downgradient, if they were -- that would provide a  
17          better clear picture understanding where exactly these  
18          were.

19          Q.     Thank you. Going back to Hart Exhibit 48, if  
20          you will turn to 1-16.

21          A.     (Witness peruses document.)

22          Q.     Under 1.2.4; are you with me?

23          A.     Yes, I am at 1-16.

24          Q.     Okay. And it says:

1 "The Allen facility completed a long-term  
2 water management project that redirects the flows  
3 currently entering the active ash basin to a new lined  
4 retention basin. The project including the -- included  
5 the disturbance of 92 acres and the movement of over  
6 500,000 cubic yards of material."

7 Is that what this says?

8 A. That is what the document states.

9 Q. And is it correct?

10 A. Yes.

11 Q. All right.

12 A. We did install a lined retention basin in  
13 order to handle as part of the treatment system of  
14 those flows.

15 Q. And when was that basin -- when did they --  
16 you begin the construction of that basin?

17 A. I believe I have that. If you give me one  
18 moment to look, I can see if I have when it started  
19 construction. Hold on one moment.

20 Q. Okay.

21 A. (Witness peruses document.)

22 So, Ms. Townsend, I was able to find for  
23 specifically the Allen lined retention basin, based  
24 upon my notes, construction in the field started in

1 July of 2017, and the in-service happened in October  
2 time frame of 2018.

3 Q. Okay.

4 A. That does not include any type of engineering  
5 or permitting that happened before that, but  
6 specifically in-the-field construction started  
7 July 2017, according to my notes.

8 Q. Thank you very much. Would you explain the  
9 phrase that is used here, "a long-term water" -- I  
10 can't talk today -- "a long-term water management  
11 project"; could you explain what is meant by that?

12 A. So Duke Energy did not write this report.  
13 This was written by the court-appointed monitors --  
14 auditors, so I don't know specifically what they meant  
15 by using the term "long-term water management project."  
16 But I will state that the lined retention basin is  
17 also -- when it was installed, was to handle the  
18 material that used to go to the basin from the plant in  
19 order to continue operations of the plant.

20 So the best I can be able to look at the  
21 words and try to understand what they might have been  
22 stating is that that lined retention basin would be  
23 used for the life of the plant and operation of the  
24 plant.

1 Q. All right. And just for clarification, my  
2 understanding based on the introductory paragraphs of  
3 the CAM reports, all of the information is obtained  
4 from Duke and/or at the Duke facility.

5 Could you tell us approximately the cost of  
6 this basin?

7 A. So, in front of me, I do have an approximate  
8 cost for the lined retention basin, itself; and  
9 according to my notes, it was roughly \$39 million.

10 Q. Okay. Thank you. And if we could turn to  
11 one of your exhibits now, if you would, Exhibit 5.

12 A. (Witness peruses document.)

13 I have Exhibit 5 in front of me.

14 Q. All right. You indicated that this provides  
15 site details and a description of the work performed  
16 and to be performed at Allen; is that correct?

17 A. Yes. For the material -- the work performed  
18 at Allen, that was included in the ARO accounting, yes.

19 Q. All right. And was this document prepared by  
20 you?

21 A. It was prepared underneath my supervision.

22 Q. All right. If you will go to page 2, under  
23 Roman numeral II, the fourth paragraph talks about cap  
24 in place is the Company's preferred closure method for

1       Allen because it is environmentally protective,  
2       unobtrusive, and economical; is that what you wrote?

3           A.     Yes.

4           Q.     Okay. However, that's not the closure method  
5       that's going to be used for Allen, is it?

6           A.     So, Ms. Townsend, when this was submitted, it  
7       was after the April 1st orders had come through from  
8       North Carolina DEQ where the North Carolina DEQ chose,  
9       and CAMA allows them to choose the option for explore,  
10      removal, and closure of the ash basins. So this was  
11      written before that -- or after the April 1st order  
12      when we were -- also had submitted our  
13      administrative -- Office of Administrative Hearing  
14      contention against the April 1st order. So at that  
15      time when this was submitted, that was the Company's  
16      position for cap in place, yes.

17          Q.     Totally understand. So Allen is one of the  
18      facilities that was the subject of the DEQ's closure  
19      determination in April of 2019, as we saw with your AGO  
20      Bednarci k Direct Cross Exhibit 3; is that correct?

21          A.     So the AGO Cross Exhibit 3 is the  
22      North Carolina DEQ's determination for closure of  
23      Allen, yes.

24          Q.     Yes. Okay. If you would turn to Duke



1 Energy's settlement agreement, including DEQ, which is  
2 Public Staff Junis Exhibit 1.

3 A. (Witness peruses document.)

4 I have that document in front of me.

5 Q. Thank you. Are you familiar with the  
6 document?

7 A. Yes, I am.

8 Q. Were you involved in the settlement  
9 negotiations?

10 A. Yes, I was.

11 Q. Okay. And if you will go to page 3 and 4, at  
12 the bottom of 3, under paragraph 7A, it talks about the  
13 Allen steam station, correct?

14 A. Yes, it does.

15 Q. All right. And it indicates -- talks about  
16 the two CCR impoundments, the retired ash basin, and  
17 the active ash basin. And it says the retired ash  
18 basin is approximately 123 acres and contains  
19 approximately 6,100,000 tons of coal ash; and the  
20 active ash basin is approximately 170 acres and  
21 contains approximately 10,480,000 tons of coal ash,  
22 correct?

23 A. Yes, that is what the document states.

24 Q. Is it accurate, to the best of your

1        knowl edge?

2            A.        Yes, to the best of my knowledge, it is  
3        accurate.

4            Q.        All right. You're familiar with the  
5        footnotes on page 4 of the agreement?

6            A.        Yes, I am.

7            Q.        All right. And can you briefly explain for  
8        us your understanding of those footnotes?

9            A.        If you give me one moment to read through  
10       it -- it's been a while since I've read through it --  
11       just to make sure.

12          Q.        Absol utel y.

13          A.        (Wi tness peruses document.)

14                So, Ms. Townsend, I've read through footnote  
15       2 again. If you could repeat your question, I would  
16       appreciate it. Thank you. You're on mute.

17          Q.        Sorry. I have the button off all the time, I  
18       forgot. Sorry, Ms. Bednarci k.

19                What I was asking is, if you could just do a  
20       brief summary of what your understanding of why a  
21       footnote is there -- 4 is there and what it pertains  
22       to?

23          A.        Of course, Ms. Townsend. So one of the areas  
24       that the Company and North Carolina DEQ had a

1       disagreement on was the fact that the retired ash basin  
2       and the ash fills that had been placed under the  
3       distribution of residual solids permit that was issued  
4       by DEQ -- and the retired ash basin was also a  
5       permitted facility under DEQ -- they were placed on top  
6       of the retired ash basin.

7               So one of the things that was -- and a point  
8       of disagreement between the Company and DEQ was our --  
9       the Company's understanding is that, since those were  
10      permitted facilities and they acted as a cap on top of  
11      basin, that the material underneath the basin -- or  
12      underneath those specific permitted facilities was not  
13      included; and the excavation orders was not -- or did  
14      not need to be excavated under the orders because it  
15      was a cap on top of it.

16             The department's position was that the  
17      inactive ash basin -- the retired ash basin, excuse  
18      me -- retired ash basin at the Allen site needed to be  
19      removed in its entirety even though it had those  
20      permitted facilities on top of it. So that was a point  
21      of contention, so that is why the footnote is there,  
22      because it clearly lays out that this was an area that  
23      the Company and DEQ had a disagreement about.

24             Q.       All right. And how was that disagreement

1 resolved regarding Allen?

2 A. Specifically for Allen, when we were -- and  
3 it lays it out actually in the settlement agreement,  
4 that the Company will be excavating all of the material  
5 on site and the retired ash basin. That includes  
6 removing the permitted landfill and the areas -- the  
7 ash fills at the Allen site.

8 Q. All right. And if we go to page 5 and 6,  
9 again pertaining to Allen, it sets out basically the  
10 closure process via excavation at Allen, correct?

11 A. Yes, the excavation of the areas I had just  
12 mentioned.

13 Q. Right. And if we go to page 6, in paragraph  
14 10, the first full sentence talks about:

15 "Duke Energy shall remove or permanently  
16 close all pipes currently running through or beneath  
17 the retired ash basin and active ash basin," correct?

18 A. That is what the document states.

19 Q. And that particular provision about closing  
20 all pipes is for every facility included in this  
21 agreement; is that correct?

22 A. Going off of memory, that is correct.

23 Q. All right. And can you tell us why that  
24 provision is there?

1           A.       So that specific provision was a requirement  
2       that the agency asked us to put in based upon my  
3       understanding at the sites that we have removed any of  
4       the discharge pipes that go into basins; and we have  
5       also either removed or pulled up any of the pipes that  
6       are going out from basin, other than, of course, the  
7       permitted NPDES discharge.

8                        So that one sentence being in there was just  
9       a -- my understanding of why it was put in there was,  
10      if we were to come across anything while we were doing  
11      excavation, is just to confirm and to solidify that  
12      those would be removed.

13          Q.       Thank you. And I believe, if we go to  
14      paragraph 11, which is right below that, the  
15      disposition of other coal ash, that's what you were  
16      referring to regarding the footnotes; is that correct?

17          A.       Yes, ma'am.

18          Q.       All right. And so is the Company seeking  
19      recovery for the disposition of this other coal ash  
20      that it contends is not regulated by CAMA?

21          A.       Yes. And that is because it is being --  
22      again, going back to DEQ's position was that the --  
23      that CAMA does require excavation of all basin ash, and  
24      that would include removing the ash that is on top of

1       it. You can't get to the material underneath until you  
2       remove the material on top.

3               So because of the settlement agreement,  
4       because of DEQ's position that all basin ash is covered  
5       by CAMA, and the excavation is required of all the  
6       basin ash, and we have to remove that material on top,  
7       then yes, that is all needed in order to meet the  
8       requirements of CAMA.

9               Q.     All right. Do you believe the agreement is a  
10       reasonable and prudent plan for the closure of Allen?

11              A.     Yes, I do.

12              Q.     Okay. You state in your summary that the  
13       Company has performed, quote, initial site work, end  
14       quote, to prepare for closure, and that it would have  
15       been undertaken had the Company pursued excavation from  
16       the start.

17                     What did this initial site work entail?

18              A.     So specifically what it related to my  
19       testimony, the work that was done on the site -- and  
20       really that is part of what is included in this  
21       specific rate case, which went through  
22       January of 2020 -- was work that was required on site  
23       in order to remove material from the basin -- or excuse  
24       me, remove all flows to the basin and all that

1       preliminary work.

2                   When we were starting to put together the  
3       closure options analysis and closure plans, the only  
4       item that was done that was -- that we could say was  
5       done that we had to do kind of double because of --  
6       whether it was excavation or closure in place, was  
7       submitting the actual closure plans. Because although  
8       a lot of the sections are similar between a  
9       closure-in-place closure plan and an excavation closure  
10      plan, there are some differences.

11                  So we did do, in some of the sites, some  
12      initial borings, initial testing to make sure that on  
13      December 31st, whenever we did submit the closure plan,  
14      the excavation closure plans to NCDEQ, that did have  
15      enough information to go forward to be able to have a  
16      complete closure plan. And that included a little bit  
17      of borings around the site and a couple of locations  
18      for potential areas of new landfills on site.

19                  So that -- that is -- going back to my  
20      original testimony, was looking at it and saying that  
21      the costs that are covered that are included in this  
22      case, substantially, other than a few borings and doing  
23      the secondary closure plan or an excavation closure  
24      plan, would have been done under both scenarios, either

1 a cap in place or an excavation.

2 Q. All right. If you will look for Mr. Hart's  
3 Exhibit 49, we will go to Belews Creek.

4 A. (Witness peruses document.)

5 So I have Mr. Hart's Exhibit 49 in front of  
6 me.

7 Q. Great. And Exhibit 49 is the June 2019  
8 Belews Creek environmental audit in support of the  
9 court-appointed monitor in the federal criminal case,  
10 correct?

11 A. That is correct.

12 Q. And if we look at 1-2, we find some -- just  
13 an overview of the facility, which indicates that it  
14 began operation in 2000 -- I'm sorry, 1974 in Stokes  
15 County, and it's located on 6,000 acres with 2 units;  
16 is that accurate?

17 A. That -- yes, that is what it says on  
18 page 1-2.

19 Q. Is that true? Is it a 6,000-acre facility  
20 with 2 units, began operation in '74 in Stokes County?

21 A. Yes, ma'am.

22 Q. All right. On page 1-3 and 4, they provide  
23 us with information regarding on-site CCR management.

24 And they refer to an active ash basin, an FGD residual



1 landfill, Craig Road landfill, Pine Hall Road landfill,  
2 and a structural fill.

3 Are those the management areas with which you  
4 are familiar?

5 A. Yes.

6 Q. All right. And in this case, when we go to  
7 page 115, in the first full paragraph, the very last  
8 line of that paragraph, it says:

9 "The Belews Creek facility CAMA groundwater  
10 monitoring network consists of 111 wells"; is that  
11 correct?

12 A. Yes.

13 Q. Okay. And it also began in the first quarter  
14 of 2019, correct?

15 A. (Witness peruses document.)

16 Sorry, I lost my place on the page. I wanted  
17 to make sure -- yes, it does say first quarter of 2019.

18 Q. Thank you. And again, I understand Mr. Wells  
19 would know how many monitoring wells were in place  
20 prior to the network being required?

21 A. Yes, that is a better question for Mr. Wells.

22 Q. All right. And he would also know, or do you  
23 know, whether any of these monitoring wells that were  
24 in existence prior to 2019 were able to be used in the

1 network?

2 A. Mr. Wells would be able to answer that, but I  
3 do know that, when we were installing and looking at  
4 the CAMA network and the CCR network, if we did have  
5 wells that could be utilized from previous  
6 installations, that we did, of course, utilize those.

7 Q. Were there many that were able to be used, to  
8 your knowledge?

9 A. I do not know the number, but knowing --  
10 through discussions with the organization that does  
11 that, that is something that -- I had conversation with  
12 them that, yes, we tried to reuse as many wells or have  
13 dual-purpose wells as we can between what was there  
14 before CAMA requirements and CCR requirements.

15 Q. Okay. And again, there's over 100 wells in  
16 the CAMA network. Do you know why 100 wells were  
17 required at Belews Creek, specifically?

18 A. So at Belews Creek it's the same answer as at  
19 Allen for CAMA, as regulated by the North Carolina  
20 Department of Environmental Quality. So we worked with  
21 them in determining where wells needed to go, and how  
22 many wells, and at what depth the wells needed to be.  
23 So it was based upon conversations with our regulator.

24 Q. All right. And if you'll go to page 1-16.

1 The report advises that -- at the very first paragraph  
2 there, it advises that a groundwater networking --  
3 monitoring network was necessary under the CCR rule; is  
4 that correct?

5 A. That is correct.

6 Q. And that one, if we add all those numbers  
7 together, we end up with 93 monitoring wells. Would  
8 you agree with that, subject to check?

9 A. Subject to check, yes, I would agree with  
10 you.

11 Q. All right. And the CCR rule network also  
12 requires not only wells at the ash basins, but also  
13 wells at the landfills, correct?

14 A. So that's a very important distinction, that  
15 the CCR rule does include also CCR units that are  
16 landfills and fills, not necessarily just the surface  
17 impoundment, which is covered under CAMA.

18 Q. Okay. Okay. On page 1-16, the CAM report  
19 also references that the Belews Creek -- is that how  
20 you pronounce it? Is it Belews Creek?

21 A. Belews Creek, yes.

22 Q. Belews Creek. Okay. Is, quote, now in the  
23 CCR assessment monitoring program due to statistically  
24 significant increases over the background values of the

1 CCR rule's Appendix 3, monitoring parameters; is that  
2 true?

3 A. Yes, it is.

4 Q. Okay. Further on that page, it appears on  
5 November 7, 2018, that Belows Creek failed to meet the  
6 placement above the upper-most aquifer, and the  
7 wetlands restrictions under the CCR rule requires the  
8 Company to cease placing CCR and non-CCR waste streams  
9 into the active basin by April 12, 2018, and begin  
10 closure; is that true?

11 A. Yes, that is correct.

12 Q. I assume CCR and non-CCR waste streams  
13 continued to exist, so where were they placed after the  
14 active ash basin was deactivated?

15 A. So very similar to Allen and all of our  
16 sites, especially those that continued to produce  
17 electricity, we had to find a different means to treat  
18 those waste streams. So we installed water treatment  
19 systems, lined retention basins in order to handle  
20 those waste streams and treat them appropriately before  
21 they are discharged to the permitted NPDES outfall.

22 Q. So these are new structures that had to be  
23 constructed?

24 A. Yes.

1 Q. And do you know approximately the cost of  
2 these new structures?

3 A. (Witness peruses document.)

4 So the document I have in front of me which  
5 gives an approximate cost for each one of the projects  
6 where we remove flows to the basin, how to handle it a  
7 different way, for the enhanced water treatment system,  
8 the FGD water treatment system -- oh, wait a minute.  
9 I'm sorry, I was looking at the wrong site.

10 Yes, the Belews Creek enhanced FGD wastewater  
11 treatment system, the actual cost was approximately  
12 \$9 million; and then for the lined retention basin, the  
13 actual cost was approximately \$37 million.

14 Q. And are both those structures concurrently  
15 operating?

16 A. Yes.

17 Q. Okay. In the last paragraph on page 116, it  
18 references a notice being put on the board on the  
19 website on December 14, 2018, showing certain Appendix  
20 4 constituents detected at levels above the applicable  
21 groundwater protection standards; is that right?

22 A. Yes, that is correct.

23 Q. All right. And we see on the next page, for  
24 the active ash basin, they found arsenic, beryllium,

1 cobalt, lithium, and radium 226 and 228 combined,  
2 correct?

3 A. Correct.

4 Q. And then for Craig Road landfill, they also  
5 found cobalt and lithium?

6 A. Yes.

7 Q. And for the FGD landfill, they found  
8 chromium, cobalt, and lithium; is that correct?

9 A. Yes.

10 Q. Now, again, DEQ also had concerns regarding  
11 some exceedances; is that correct?

12 A. If you can ask me -- that's a very broad  
13 question, so if you could ask me specifically, I would  
14 appreciate it.

15 Q. Sure. If you will go to AGO Cross  
16 Exhibit 18, which is the Belews Creek coal combustion  
17 residual surface impoundment closure determination.

18 A. I have that document in front of me.

19 Q. All right.

20 MS. TOWNSEND: Chair Mitchell, we would  
21 ask for this exhibit be marked as AGO Bednarci k  
22 Cross Exhibit -- Direct Cross Exhibit Number 4.

23 CHAIR MITCHELL: All right. The  
24 document will be marked AGO Bednarci k Direct Cross

1           Exhibit Number 4.

2                           MS. TOWNSEND: Thank you.

3                           (AGO Bednarci k Direct Cross Exhibit  
4                           Number 4 was marked for identification.)

5           Q.       So if we go to page 14 of the document. Are  
6           you there?

7           A.       I'm on page 14.

8           Q.       And right after the two tables, it says that:  
9                       "These data illustrate that after completion  
10           of closure with the final cover or hybrid option, the  
11           groundwater plume still extends beyond the compliance  
12           boundary above the 2L groundwater standard, and the  
13           area of the plume requiring remediation is immense.  
14           Even 118 to 125 years beyond completion of closure, the  
15           area of the plume requiring remediation remains  
16           extensive."

17                       Is that an accurate reading of what it says  
18           in the DEQ report?

19           A.       Yes. But I would also say that the very next  
20           sentence indicates that DEQ recognizes that there are  
21           no groundwater remediation corrective actions included  
22           in the groundwater modeling simulations submitted to  
23           DEQ as part of Duke Energy's closure option analysis  
24           documentation. So I just want to make sure that's

1 clear that what DEQ is making the determination in that  
2 statement was based about upon the data, but did not  
3 include any model simulations for a groundwater  
4 corrective action program, which the Company is going  
5 to be implementing at the site.

6 Q. All right. If you would turn to Mr. Hart's  
7 testimony on pages 85 and 86.

8 A. (Witness peruses document.)

9 I am now on page 85 of Mr. Hart's testimony.

10 Q. All right. He addresses the subject of the  
11 boron groundwater contamination that is referenced in  
12 the DEQ document. If you look at the graph on page 86,  
13 it indicates that the boron concentration was below the  
14 standard in 2007 and '08, but began rapidly increasing  
15 in 2009; is that correct?

16 A. Based upon the specific wells that Mr. Hart  
17 is showing in this table, that is what the table shows.

18 Q. Right. And also confirms what DEQ indicates  
19 in its document, correct?

20 A. So DEQ's document talks about the plume  
21 overall, and also what they saw, again, without  
22 groundwater remediation, which the Company is  
23 implementing. Mr. Hart's only pulls out a number of  
24 wells. So it does show the groundwater data in those



1       specific wells, and it does show that, in a number of  
2       the wells, three specifically on his chart, are above  
3       the 2L standard.

4           Q.       Okay. Do you know if anything was done post  
5       2009 when the boron plume became evident?

6           A.       If you give me one moment, let me look at  
7       something and see if those specifically related to  
8       this. If you wait one moment, please.

9           Q.       Absolutely.

10          A.       (Witness peruses document.)

11                 So I don't have anything that comes to mind  
12       right now specifically related to the 2009 when boron  
13       started to go above the 2L standard, but those -- any  
14       groundwater data that we would have had of course would  
15       have been submitted to the North Carolina Department of  
16       Environmental Quality and we would have had discussions  
17       with them as to what those results had shown. But I  
18       don't have sitting in front of me specifically the  
19       actions taken in 2009.

20          Q.       All right. And again, was coal ash the only  
21       waste stream that was disposed of in the coal ash  
22       basins at Belows Creek?

23          A.       So all of our sites utilized the coal ash  
24       basins for different waste streams from the plant,

1        itself. Very similar to the list that we read for  
2        Allen, similar types of waste streams were allowed to  
3        be discharged into the basin and be treated. It was  
4        used as a -- the basins were used as part of our water  
5        treatment system for the operations of the plants, and  
6        all of that did go out our permitted NPDES discharge.

7            Q.        All right. And if you'll look at page 81 of  
8        Mr. Hart's testimony.

9            A.        (Witness peruses document.)

10            All right. I'm on page 81.

11            Q.        Thank you. Line 6 to 10, he talks about what  
12        is in those permits. He says:

13                    "They received power house and yard sumps,  
14        water from a chemical holding pond, coal yard sumps,  
15        stormwater, treated domestic wastewater, remediated  
16        groundwater, stormwater from the coal pile, release of  
17        ammonia and miscellaneous stormwater flows, a yard  
18        drain sump, water treatment filter backwash, medical  
19        cleaning waste, treated groundwater, laboratory waste,  
20        floor drain water, landfill leachate, and FGD  
21        wastewaters."

22                    Is that his testimony?

23            A.        So as you're reading that, I got lost for a  
24        moment, but looking at his lines 6 through 10, I would

1 say yes, that is all of the permitted waste streams  
2 that were allowed to go to the basin.

3 Q. All right. And, again, how were those  
4 particular waste streams or materials to be handled  
5 after the evacuation, or excavation, I guess, of the  
6 coal ash occurs at Belews Creek?

7 A. So we discussed this a little bit before. So  
8 at Belews Creek, we did -- we had a requirement per  
9 CAMA and CCR to reroute waste streams from the basins.  
10 And in order to do that and be able to continue  
11 producing electricity and operation of the plant, we  
12 had to find alternate means to do treatment of those  
13 waste streams; and that was the installation of the  
14 wastewater treatment plants and the wastewater lined  
15 retention basin that we discussed earlier.

16 Q. All right. So if you'll look at 118 of the  
17 CAM report, it actually indicates in the last paragraph  
18 that the construction of the lined retention basin and  
19 the holding basin dams were completed over the last  
20 year under two permits. And a certificate of final  
21 approval was issued for both of those dams on  
22 February 26, 2019. Is that part of what you were  
23 explaining?

24 A. Yes.

1 Q. Staying with Mr. Hart's testimony, if I go to  
2 page 85.

3 A. I am on page 85.

4 Q. All right. And just to shorten this, it  
5 indicates that four of those wells show high  
6 concentrations of exceedances of more than 2,000 to  
7 more than 12,000 micrograms per liter versus the 2L  
8 groundwater standard of 50; is that true? At least  
9 those two wells --

10 (Reporter interruption due to sound  
11 failure.)

12 Q. So at least those two wells do show  
13 exceedances well above the 2L groundwater standard of  
14 50; is that correct?

15 A. Yes, for those two wells. But unlike the  
16 Allen graph that Mr. Hart had in his testimony, I do  
17 notice that there is no background wells shown in this  
18 graph either. So again, the monitoring network  
19 needs -- to be able to understand what is going on at  
20 the site, you do have to look at all the wells and the  
21 depth of the wells, whether they are -- and I do see  
22 that Mr. Hart does show a couple that are deep, a  
23 couple that are shallow, so at different aquifer  
24 levels. So you really -- while this does show a couple

1 of wells were above that standard, understanding the  
2 groundwater network, you really have to look at all the  
3 information.

4 Q. And I'm sure he will be more than happy to  
5 explain where he got his results.

6 Do you know what, if anything, was done  
7 regarding manganese from 2011 to 2019 regarding those  
8 exceedances? Or any exceedances of manganese at that  
9 time?

10 A. So I don't know specifically what was done in  
11 2011 and '12. I do know that any groundwater results  
12 that we have are shared with the agency, and we would  
13 work with the agency if actions were needed. That's  
14 you also why we would need to look and see what the  
15 background levels were, where they were in relationship  
16 to our compliance boundary as well.

17 All of that needs to be taken into account in  
18 order to determine whether there are steps needed to be  
19 taken related to groundwater exceedances.

20 Q. And do you agree with Mr. Wells' testimony on  
21 page 28, lines 18 through 21 -- you don't need to go  
22 there. This is subject to check.

23 But when referring to the manganese  
24 exceedances, he says that, quote:

1 Migration around the basins of ubiquitous,  
2 naturally occurring groundwater constituents identified  
3 by the USEPA as secondary in the CLs did not pose a  
4 high risk of injury to human health or the environment,  
5 end quote.

6 Do you agree with that statement?

7 MR. MARZO: Ms. Townsend, what page was  
8 that, and line number? I was trying to follow  
9 that.

10 MS. TOWNSEND: Absolutely. It's on  
11 page 28, lines 18 through 21.

12 THE WITNESS: So I do not have  
13 Mr. Wells' testimony right in front of me. I can  
14 get it, but subject to check that you read that  
15 correctly, I would agree with Mr. Wells' testimony.

16 Q. Okay. So if Mr. Hart is correct and  
17 manganese was found in at least two wells, if not more,  
18 would you consider 40 to 200 times higher than the  
19 established 2L standard to be, quote, sufficient, end  
20 quote, in quantity or concentration?

21 A. So, Ms. Townsend, I'll go back to what I  
22 stated a few moments ago. You cannot look at just one  
23 well or one or two wells, you really need to look at  
24 the well network, and the background levels, and where

1 they are in relationship to the compliance boundary in  
2 order to determine what needs to be done at the site.

3 Q. All right. If you will go back to Hart  
4 Exhibit 49, the CAM report, to 1-4.

5 A. Ms. Townsend, can you tell me where to go  
6 again? Because you mentioned Hart's exhibit and  
7 also -- I want to make sure I'm in the right place.

8 Q. Sure. Hart's Exhibit 49, which is the CAM  
9 report we've been dealing with Belows Creek.

10 A. Okay. Sorry. I have lots of binders in  
11 front of me. I wanted to make sure I had the right  
12 one.

13 Q. Totally understand. I'm surrounded by paper.  
14 I totally get you.

15 A. I have it in front of me.

16 Q. All right. On page 1-4, it says that --  
17 under structural fill, about halfway down, the sentence  
18 or the line starts with, "And, therefore, it's under  
19 the jurisdiction of the DWM," and then it starts, "An  
20 assessment of groundwater."

21 Do you see where I am?

22 A. Yes, I see where you are.

23 Q. Okay.

24 "An assessment of groundwater quality in the

1 vicinity of the structural fill was completed in 2017,  
2 and the results were presented in a report submitted to  
3 DWM in January 2018 which recommends additional  
4 assessment activities by Duke. Duke stated during the  
5 2018 audit that it was currently preparing a work plan  
6 which describes the planned additional assessment  
7 activities. However, due to scheduling conflicts with  
8 other work at the Belews Creek facility, a work plan  
9 had not been submitted to the DWM at the time of the  
10 2019 audit?"

11 My question is, has a work plan now been  
12 submitted to DEQ subsequent to the 2019 audit? When  
13 was it submitted? And what assessment activities are  
14 planned under that work plan?

15 A. So, Ms. Townsend, I don't have that specific  
16 information in front of me, but I'm sure that we can  
17 obtain that and/or Mr. Wells would be able -- may be  
18 able to give you those specific details related to a  
19 specific point.

20 Q. All right. Thank you.

21 Do you know what scheduling conflicts delayed  
22 the submission of the work plan?

23 A. I don't know specifically, but, of course,  
24 this is during the time period where we were



1 implementing the requirements under CAMA and CCR. And,  
2 of course, if there was any type of conflicts, we would  
3 have discussed that with the Department of  
4 Environmental Quality.

5 Q. All right. If you'll turn to your Exhibit 6.

6 A. I have that in front of me.

7 Q. Okay. And this, again, is a document which  
8 provides site details and a description of the work  
9 performed or to be performed at Belews Creek according  
10 to your testimony; is that correct?

11 A. Yes, ma'am.

12 Q. And was the document prepared by you?

13 A. Yes, underneath my direction.

14 Q. All right. And if we go to page 2, section  
15 2, the fourth paragraph, again it states that the cap  
16 in place is the Company's preferred closure method for  
17 Belews Creek because it's environmentally protective,  
18 unobtrusive, and economical.

19 Again, this is not what happened at -- or  
20 will happen at Belews Creek; is that correct? I  
21 understand that you did not know at that time about  
22 the -- what was going to happen regarding the April 1st  
23 determination. But my point is simply that isn't what  
24 happened, there is another method that's going to be

1       used for closure; is that correct.

2           A.       That is correct. When we submitted the  
3       initial direct testimony, the -- what the Company was  
4       looking towards was a cap in place. And based upon the  
5       April 1st determination and subsequent negotiations  
6       with DEQ, we will now be excavating the Belews Creek  
7       ash basin.

8           Q.       Okay. And if you will go to Public Staff  
9       Juni s Exhibit 1, his Direct Exhibit 1. It's the  
10      settlement agreement in December of 2019.

11      A.       Yes, I have that in front of me.

12      Q.       Okay. And page 4, paragraph 7B talks about  
13      Belews Creek. And it says that at Belews Creek,  
14      there's one CCR impoundment, an ash basin -- and an ash  
15      basin. And the ash basin is approximately 270 acres  
16      and contains approximately 11,970,000 tons of coal ash;  
17      is that correct?

18      A.       That is correct.

19      Q.       All right. And if you go to page 10 of the  
20      document, paragraph 17. Are you there?

21      A.       Yes, I am there.

22      Q.       All right. It says -- it has an additional  
23      provision than was in the Allen provisions. It states  
24      beginning on the seventh line --

1 A. I --

2 Q. Well, it starts -- the line starts with the  
3 word "limitation as specified in paragraph 52." I may  
4 have miscounted the lines. Do you see where I --

5 A. I see where you are.

6 Q. Okay. It says:

7 "If the coal ash under and within the waste  
8 boundary of the Pine Hall Road landfill and within the  
9 waste boundary of the ash basin is not excavated, then  
10 at a minimum, Duke Energy shall remedy violations that  
11 DEQ determines are material violations of the 2L  
12 groundwater standards attributable to the ash basin at  
13 or beyond the geographic limitation as described in" a  
14 following paragraph.

15 Would you explain the purpose that provision  
16 to your understanding?

17 A. So my understanding is, if you go back a  
18 couple of paragraphs, under 14 there is a section in  
19 the middle of paragraph 14, on page 8. And there is a  
20 line there that says that the closure plan will  
21 provide -- I'm about two, three, four, five -- the  
22 sixth sentence down.

23 The closure plan will provide that ash shall  
24 remain underneath the Pine Hall Road landfill, which is

1 capped with a synthetic cap, and it's been closed  
2 pursuant to a permit 8503-INDUS-1984 to stop receiving  
3 coal ash in 2014.

4 Sorry. I let go of the space bar. So my  
5 understanding is that what was going on at Belews Creek  
6 is that the active ash basin does have what we call a  
7 finger, a very small finger that holds about  
8 100,000 tons of ash that does extend underneath the  
9 Pine Hall Road Landfill. And again, as it states in  
10 this paragraph, the Pine Hall Road Landfill does have a  
11 synthetic half on top of it.

12 When we were looking at what the boundary  
13 was, the compliance boundary was around the active ash  
14 basin, there was -- how the compliance boundary is set,  
15 I believe it's 500 feet from the edge of the waste  
16 boundary or the property border, whichever is closer.  
17 So there was a portion, I believe it was in the  
18 northwest corner -- subject to check, northwest corner  
19 where there was a piece of property which we did not  
20 own. So that brought the ash basin -- that brought the  
21 compliance boundary in a little bit.

22 So what this is discussing is that, if we  
23 were not able to come up with a remedy -- and we had  
24 been negotiating with that homeowner to purchase that

1 property. There was no homes on that property, but it  
2 was not part of Duke Energy's property boundary. If we  
3 could buy that piece of property and be able to have a  
4 compliance boundary that does go out the 500 feet, then  
5 the material, that 100,000 tons underneath -- that one  
6 little finger that was underneath the cap portion of  
7 the Pine Hall landfill could remain in place depending  
8 on stability. And we would be able to put in some type  
9 of a stability wall.

10 So the idea was that, if we could -- if that  
11 compliance boundary was right at the property border,  
12 then we would need to do -- we would have a date  
13 certain of when groundwater needed to be pushed back  
14 until that property boundary. If we were able to  
15 purchase that property and have a little bit extended  
16 compliance boundary to the 500 feet, then the date --  
17 it would be a different date for us to be able to  
18 implement our groundwater remediation, groundwater  
19 corrective action program, and pull those dates back.

20 But, of course, whenever we implement that  
21 data or that groundwater corrective action program, we  
22 would be working with the Department of Environmental  
23 Quality. So that paragraph you read, that is of  
24 course -- I mean, it's under the department that, if

1       they're not seeing the results as needed, then it  
2       states that they would -- they would continue and  
3       provide us do additional work.

4           Q.       And was there a set deadline for when the  
5       coal ash was to be excavated? Because it says if it  
6       is -- if it's not excavated, then at a minimum they  
7       should remedy violations. Do you have a set date for  
8       that excavation?

9           A.       So, Ms. Townsend, if you go back to page 8  
10      and page -- page 8 actually has a deadline for closure  
11      listed in the settlement agreement. So it says, in  
12      paragraph 15, that we project we will need until  
13      December 31, 2031, to complete the excavation. But  
14      later on in that paragraph, it states that we will be  
15      done, in no event, not later than December 31, 2034.

16          Q.       All right. Thank you. And if we can go back  
17      to your AGO Bednarcik Direct Cross Exhibit Number 1,  
18      which are the responses to the Data Request 2-1, and if  
19      you could go to page 9 of that document.

20          A.       (Witness peruses document.)

21          Q.       Are you with me?

22          A.       No, I'm not. If you could tell me which -- I  
23      have not been marking those documents. If you could  
24      tell me which cross exhibit it was originally, that

1 would help.

2 Q. Sure. It was the original AGO Exhibit 25.

3 A. (Witness peruses document.)

4 I have it in front of me now. Thank you.

5 Q. All right. On page 9 there's a table, and  
6 the second station name is Belews Creek, yes?

7 A. Yes.

8 Q. And if we go to the block under state  
9 agency/court order/settlement agreement requirement, it  
10 refers to an accelerated remediation interim action  
11 plan effectiveness monitoring report.

12 Can you give us some more information  
13 regarding what that report is about, and what is the  
14 accelerated remediation in reference to?

15 A. So the accelerated remediation under what we  
16 call the Sutton agreement, Sutton settlement agreement,  
17 did require accelerated remediation in a number of  
18 plants, one of which was Belews Creek. Now, of course,  
19 that accelerated remediation is going to be  
20 incorporated into our groundwater corrective action  
21 program that is going to be implemented per CAMA.

22 So it was in the settlement -- or the Sutton  
23 settlement, it did require us to install some  
24 extraction wells earlier than we would have for CAMA,

1 but it still would be needed for CAMA. So my  
2 understanding is that that's what that specific block  
3 on page 9 is referring to.

4 Q. And do you know whether or not an actual  
5 action plan was prepared?

6 A. As I sit here today, I do not know  
7 specifically if that one specific plan was prepared.  
8 Mr. Wells may be able to answer that.

9 Q. All right. And so you don't know  
10 specifically whether any part of the accelerated  
11 remediation has actually been completed to date?

12 A. So I do know that we do have the accelerated  
13 remediation. We do have that extraction system. And  
14 because actually the gentleman that manages that to  
15 make sure it keeps working works for me, so I do know  
16 that that system is operational.

17 Q. And what was the approximate cost of that  
18 system?

19 A. I believe that the majority of the  
20 installation of that system was covered in the last  
21 rate case, and I do know that that was included -- the  
22 cost estimates were included in data requests that were  
23 provided. I can't remember if it was to the AGO or the  
24 Public Staff. But as I sit here today, I don't



1 remember the specific cost for that extraction system  
2 at Belows Creek.

3 Q. Thank you, Ms. Bednarci k. If you would now  
4 turn to Mr. Hart's Exhibit 50, that is the August 2019  
5 Buck environmental audit in support of court-appointed  
6 monitor in the federal criminal case.

7 CHAIR MITCHELL: All right.

8 Ms. Townsend, before we begin on this document, we  
9 are going to take our morning break. We will go  
10 off the record. We will go back on at 10:45.

11 MS. TOWNSEND: Thank you.

12 (At this time, a recess was taken from  
13 10:30 a.m. to 10:45 a.m.)

14 CHAIR MITCHELL: Let's go back on the  
15 record, please. Ms. Bednarci k, Ms. Townsend, you  
16 may proceed.

17 MS. TOWNSEND: Thank you,  
18 Chair Mitchell.

19 Q. Ms. Bednarci k, right before we broke we were  
20 going to turn to Mr. Hart's Exhibit 50, which is the  
21 Buck environmental audit in support of the  
22 court-appointed monitor.

23 Do you have that document?

24 A. Yes, I have that document in front of me.

1           Q.     And again, just to give a real quick facility  
2     overview of Buck, it began operation -- it's on  
3     page 1-2 -- it began operation in 1926 in Salisbury.  
4     It operated six coal-fired units and three gas-fired  
5     combustion turbine units which were all decommissioned  
6     in 2013; is that accurate?

7           A.     Yes.

8           Q.     Okay. And then currently, beginning in 2011,  
9     evidently it now operates combined cycle gas and steam  
10    units 10 through 12?

11          A.     Yes, that is correct.

12          Q.     All right. And on page 1-3, it talks about  
13    the coal ash areas, of one being an additional primary  
14    pond, a primary pond, and a secondary pond.

15                 Are those three ponds still in operation?

16          A.     So they -- with the retirement of the coal  
17    ash basin -- or the coal plant, they are no longer in  
18    operation. But they did receive some waste flows from  
19    the combined cycle plant that we had to reroute  
20    stormwater flows out of the basin related to the  
21    combined cycle. But they do not receive any CCR  
22    material today.

23          Q.     All right. And the closure plans for Buck  
24    required the removal of CCR via the processing at an

1 on-site beneficiation facility; is that correct?

2 A. Yes, that is correct. Buck was chosen as one  
3 of the three locations required underneath the  
4 amendment to CAMA for the processing of basin ash for  
5 sale into the concrete market.

6 Q. Thank you. If you'll turn to 1-12, and the  
7 paragraph immediately before 1.2.3; are you with me?

8 A. Yes.

9 Q. All right. It states -- the last sentence:  
10 "Pursuant to Duke Energy's March 20, 2019,  
11 letter, the Buck facility CAMA groundwater monitoring  
12 network consists of sampling 32 wells quarterly, and 61  
13 wells sampled semi annually beginning the first quarter  
14 2019"; is that correct?

15 A. Yes, ma'am.

16 Q. Okay. And is that being done, to your  
17 knowledge?

18 A. Yes. Yes.

19 Q. And if you'll now turn to page 1-9, it talks  
20 about the CCR rule; are you with me?

21 A. Yes, I'm there.

22 Q. Okay. And it revises that Buck is also  
23 subject to the CCR rule, and that the rule requires  
24 that they maintain a CCR monitoring ground network --

1 groundwater monitoring network consisting of 26  
2 downgradient wells, 2 background wells at basin 1.  
3 Basins 2 and 3 are part of a separate multiunit CCR  
4 groundwater monitoring network consisting of 26  
5 downgradient wells and 4 background wells; is that  
6 correct?

7 A. Yes, that is correct.

8 Q. And then going to 1-10. The CAM report  
9 references three postings by Duke under the CCR rule,  
10 correct?

11 A. So I do see that we did postings. It  
12 mentions a couple different postings. A posting on  
13 March 14, 2018, that they both -- all three of the  
14 basins were in CCR assessment monitoring for  
15 Appendix 3; and then another posting November 7, 2018,  
16 for the all three basins. And then another posting on  
17 March 26, 2019, for all three basins.

18 Q. All right. Talking about the  
19 November 7, 2018, posting, it indicated that basins 1,  
20 2, and 3 didn't meet the surface impoundment standard  
21 for placement above the uppermost aquifer; and it says  
22 basins 1 and 3 also didn't meet the surface impoundment  
23 standards for wetlands; is that correct?

24 A. Yes, that is correct.

1 Q. And it says failure to meet the wetlands  
2 restriction requires Duke to cease placing CCR and  
3 non-CCR waste streams into basins 1 and 3 and begin  
4 closure by April 12, 2019. Is that what happened?

5 A. So we had ceased placing CCR, of course,  
6 prior to that, when the plants and the coal plants  
7 stopped generating, but the CCR waste streams, that's  
8 what I discussed earlier with the removal of those  
9 waste streams from the combined cycle plant, so yes.

10 Q. And then the next posting evidently was on  
11 December 14, 2018; do you see that at the bottom?

12 A. So there was a posting on March 26th. Sorry,  
13 yup, I see where you're saying in the next paragraph,  
14 December 14, 2018. Yes.

15 Q. Okay. And this is where they provided notice  
16 that the following Appendix 4 constituents were  
17 detected at levels above the applicable groundwater  
18 protection standard, correct?

19 A. Yes.

20 Q. Okay. Basin 1 had cobalt, basin 2 had cobalt  
21 and lithium, basin 3 had cobalt and lithium; is that  
22 accurate?

23 A. Yes, ma'am.

24 Q. Now, under the provision under the

1 November 7th that we talked about, it says:

2 "Failure to meet the restrictions would  
3 require them to cease placing CCCR and non-CCCR waste  
4 streams in the basins 1 and 3."

5 And where exactly do they go at Buck now that  
6 they no longer have them there?

7 A. So if you give me one moment, please.

8 Q. Sure.

9 A. (Witness peruses document.)

10 So at the Buck plant, as I mentioned earlier,  
11 it does not, of course, receive CCR, because the plants  
12 stopped operating and then that's when it stopped. And  
13 it did not receive any waste streams from, of course,  
14 the operating coal plant, because it wasn't operating.  
15 But we did end up doing a stormwater process water  
16 reroute out of the basin. So that was -- there was  
17 some storm water that went from the combined cycle into  
18 the basin. So that's what we had to remove, that flow  
19 from the basin, itself. I don't have when that work  
20 was started in front of me, but was completed in  
21 December of 2018.

22 Q. And do you know what the cost of that reroute  
23 was, approximately?

24 A. So that is approximately \$1.5 million.

1 Q. All right. If you will now turn in the CAM  
2 report to page 3-1.

3 A. (Witness peruses document.)

4 I am on page 3-1.

5 Q. All right. And the CAM report advises that  
6 constituents exceeding the standards established in the  
7 2L rules and monitoring wells located at are beyond the  
8 compliance boundaries for all three basins in 2018 and  
9 2019; is that what it reported?

10 A. So if you give me a moment to read through  
11 3-1, I want to make sure that --

12 Q. Sure, please.

13 A. (Witness peruses document.)

14 So thank you, Ms. Townsend, for giving me a  
15 little bit of time there. Can you repeat your  
16 question, please?

17 Q. Yes. I was looking at -- under the finding  
18 under 3-1, it states -- if you look at the -- well,  
19 we'll start at beginning:

20 "Constituents exceeding the standards for  
21 class GA waters established in" -- we'll call this the  
22 2L rules -- "were documented in monitoring wells  
23 located at or beyond the compliance boundaries for  
24 basins 1, 2, and 3." And it says, "Based on the review

1 of the 2018 and '19 CAMA groundwater monitoring  
2 analyses, and the 2018 NPDES groundwater monitoring  
3 analyses, boron, cobalt, iron, manganese, sulfate, and  
4 total dissolved solids were noted to exceed the 2L  
5 standards"; is that correct?

6 A. Yes, that is what it states here. And I  
7 would also note that, if I am remembering correctly,  
8 that is similar to findings that were found by the CAMA  
9 monitors in previous years. And, of course, those  
10 groundwater exceedances are being addressed as part of  
11 our Coal Ash Management Act requirements, and we're  
12 work with the states.

13 Q. And it would appear that Duke did not want  
14 the CAM to report those exceedances, did it?

15 A. So I would not agree with that  
16 characterization. If you look on the second page, it  
17 just says that:

18 "Duke Energy has stated the opinion that,  
19 pursuant to a 2015 settlement agreement with DEQ, Duke  
20 Energy is not subject to any further financial  
21 penalties for exceedances of groundwater standards."

22 So I would state, based upon what I'm reading  
23 here and my experience of working with the  
24 court-appointed monitor and the audit program, itself,



1       that we would not have told the CAM auditors, no, we  
2       don't want you to report this; but we want to, of  
3       course, add clarification and understanding around the  
4       findings that they have so that, as it gets posted, the  
5       people who are reading it have a better understanding  
6       of kind of the larger picture of what is going on at  
7       the site.

8           Q.     Right. So they added -- the CAM evidently  
9       added the last paragraph that says:

10                "The CAM provides the audit team that the  
11       audit scope does not include an evaluation of  
12       compliance with the September 2015 settlement  
13       agreement; therefore, the audit team does not take a  
14       position on Duke Energy's opinion," correct?

15           A.     Yes. I think that would agree with what I  
16       just stated, is that we never, of course, directed the  
17       CAM what to do or not to do. Of course, we would  
18       provide our information and our opinions. But the CAM  
19       is an independent court-appointed monitor, so. But  
20       wanted to provide, again, bigger picture of more  
21       information in order to make sure that people as they  
22       read that had more information available to them.

23           Q.     All right. If you would, let's go away from  
24       Buck and go to Cliffside. And in doing so, go to

1 Mr. Hart's Exhibit 51, which is the May 2019 Cliffside  
2 environmental audit in support of the court-appointed  
3 monitor.

4 A. I have that in front of me now.

5 Q. All right. And again, if we'll go to page  
6 1-2 where they give a facility overview. It would  
7 appear that Cliffside began operation in 1940 in  
8 Mooresboro and covers approximately 1,500 acres. It  
9 had -- originally had four coal-fired boilers operated  
10 until October 2011 when those were decommissioned and  
11 demolished. Currently, there are two coal-fired  
12 boilers, unit 5 and unit 6; is that accurate?

13 A. Yes, ma'am.

14 Q. All right. And again, going to 1-3 and 1-4  
15 where they talk about the actual ash management areas  
16 at Cliffside, we have inactive units 1 through 4 ash  
17 basin, an inactive unit 5 ash basin, an active ash  
18 basin, a Cliffside landfill, a dry ash stacks, ash  
19 discovery area; is that correct?

20 A. Yes.

21 Q. All right. And going through the program  
22 here to 1-14. And at the very last line on 1-14 -- are  
23 you there? All right. It says that the Cliffside  
24 facility CAMA groundwater monitoring network consists

1 of 253 wells; is that correct?

2 A. Yes, that is correct.

3 Q. Do you know why the network contains over 250  
4 wells, as opposed to Allen that had 100-and-some and  
5 Belows Creek with 100-and-some?

6 A. So as I mentioned on the other sites is that  
7 the CAMA monitoring well network is -- we work with the  
8 North Carolina Department of Environmental Quality to  
9 determine where those wells are located. At Cliffside  
10 specifically, the areas, the unit 1 through 4, the  
11 basin 1 through 4, the active ash basin, the unit 5,  
12 the ash fills, those areas are a little bit further  
13 apart. So I would say, based upon my experience siting  
14 wells, is that that probably has -- why it has more  
15 wells than maybe another site is because of the  
16 distance and proximity of the basins to one another.

17 Mr. Wells may be able to provide more clarity  
18 than that, but just from my experience with groundwater  
19 monitoring wells and knowing the sites and where these  
20 basins are, they're a little bit further apart than  
21 some of the other locations.

22 Q. All right. And if you'll go back to AGO  
23 Bednarci k Direct Cross Exhibit 1, going back to that  
24 table on page 11 and 12.

1 A. (Witness peruses document.)

2 I have page 11 in front of me.

3 Q. And for the CAMA for Cliffside, which is CLS  
4 on this document, it shows, in 2018, that there were  
5 175 wells; is that correct?

6 A. Yes, that is correct.

7 Q. All right. And if we go to 2019, on page 12,  
8 it would appear that Cliffside has 100 and -- let's  
9 see, read this right -- 147 being sampled semi annually  
10 and 129 being sampled quarterly, which is about 276  
11 wells, correct?

12 A. That is correct.

13 Q. All right. Does that mean that 151 wells --  
14 175 to 276 -- 151 wells were installed between --

15 (Reporter interruption.)

16 Q. So does that mean that, between 2018 and  
17 2019 -- 2018 having 175 wells, 2019 having 276 wells --  
18 were 101 wells installed during that period of time?

19 A. So based upon the information that was  
20 provided in this, and I know the team that would have  
21 put this together, yes, they were installed. And they  
22 would have been installed because the state -- working  
23 with the state required us to install additional wells.

24 Q. All right. And do you know the approximate

1 expense of those wells?

2 A. I do not, as I sit here today, have the  
3 expense for the installation for those specific wells.

4 Q. All right. All right. If we go to 1-15 and  
5 1-16, it looks like -- at the under the CCR rule, the  
6 last, let's see one, two, three, four, five, sixth line  
7 at the end starts with a 2018 annual report; do you see  
8 where I am?

9 A. Yes, I see where you are.

10 Q. It states that the CCR groundwater monitoring  
11 network is comprised of combined 79 wells. Some placed  
12 at active ash basin, some at inactive units 1 through  
13 4, and then the unit 5 and the CCP landfill.

14 So it covered all of those ash management  
15 areas, correct?

16 A. Correct.

17 Q. All right. All right. Also on page 1-16 and  
18 17, we have the notices that were done for Cliffside.  
19 And it would appear on February 27th, on 1-16, they --  
20 Duke noticed on their website that the active basin,  
21 active ash basin, inactive units 1 through 4 ash basin,  
22 and the inactive unit 5 ash basin are now in the CCR  
23 assessment monitoring program due to statistically  
24 significant increases over the background values of the

1 Appendix 3 parameters; is that correct?

2 A. Yes, that is correct.

3 Q. All right. And then evidently on March 14th,  
4 they also included the CCP landfill being part of the  
5 CCR assessment monitoring program, correct?

6 A. Yes, that is correct.

7 Q. Okay. And the other notice, let's see, on  
8 November 7th, this is where they found that the  
9 location restrictions from impoundments stated the  
10 active ash basin and the inactive unit 5 ash basin did  
11 not meet the surface impoundment standard for placement  
12 above the uppermost aquifer or for wetlands.

13 And again, this required closure and the  
14 ceasing of placing CCR and non-CCR waste streams into  
15 those -- into the active ash basin; is that correct?

16 A. Yes, that is correct.

17 Q. Okay. And the last notice would appear to be  
18 the December 14, 2018, notice which indicated that  
19 there were Appendix 4 constituents detected at levels  
20 above the applicable groundwater protection standard,  
21 correct?

22 A. Yes, ma'am.

23 Q. All right. At the active ash basin, they  
24 found arsenic and cobalt; at the inactive units 1

1 through 4 ash basin, arsenic and cobalt; inactive unit  
2 5 ash basin, beryllium, cobalt, thallium reading 226  
3 and 228 combined; and for the CCP landfill, cobalt and  
4 lithium; is that correct?

5 A. Yes, ma'am.

6 Q. All right. And DEQ also found contaminants  
7 that had exceeded the standards; did they not?

8 A. So if you could -- a very broad question. If  
9 you could narrow it down a little bit, I would  
10 appreciate it.

11 Q. Sure. If you go to AGO Cross Exhibit 19,  
12 which is the Rogers Cliffside steam station coal -- CCR  
13 surface impoundment closure determination dated  
14 April 1, 2019.

15 A. Which page is that?

16 Q. I'm sorry. It's number 19.

17 MS. TOWNSEND: And we would like to mark  
18 that as Exhibit AGO Bednarci k Direct Cross Exhibit  
19 Number 5.

20 CHAIR MITCHELL: All right. The  
21 document will be so marked.

22 MS. TOWNSEND: Thank you.

23 (AGO Bednarci k Direct Cross Exhibit  
24 Number 5 was marked for identification.)

1 Q. If you will turn to page 10, Ms. Bednarci k,  
2 of that document. Are you there?

3 A. I'm on page 10.

4 Q. All right. It says DEQ -- I'm sorry, one,  
5 two, three, four -- fifth paragraph. It says:

6 "DEQ concludes that the contaminated  
7 groundwater plume in the area near the active ash basin  
8 has extended beyond the compliance boundary near the  
9 northeast corner of impoundment where a small portion  
10 of an adjacent property extends along the Broad River.  
11 The plume has also extended beyond the compliance  
12 boundary in the area of the ash storage area. The  
13 horizontal extent of nearly all COIs, such as arsenic,  
14 chromium, cobalt, iron, manganese, strontium, sulfate,  
15 thallium, TDS, vanadium, total uranium, and total  
16 iridium occur in the shallow flow zone and are  
17 generally within the boron plume footprint. Total core  
18 chromium and cobalt appear to have some exceedances in  
19 isolated pockets outside the boron plume near the  
20 plant. Strontium" -- I'm not sure I'm saying that  
21 right -- "and sulfate plumes appear to be slightly more  
22 widespread extending outside the boron plume near the  
23 unit 5 inactive ash basin at the plant."

24 Is that what DEQ found?



1 A. Yes.

2 Q. Okay. If we will go to your Exhibit 7.

3 A. (Witness peruses document.)

4 I have that in front of me now.

5 Q. And this is your exhibit which provides the  
6 site details and a description of the work performed  
7 and to be performed at Cliffside; is that correct?

8 A. Yes, that is correct.

9 Q. Okay. Again, I know I've asked you of the  
10 others, but again, was this document prepared by you?

11 A. It was prepared under my direction.

12 Q. And again, on page 3, under section 2, second  
13 to the last paragraph in that section; are you there?

14 A. Yes, I am there.

15 Q. Okay. You indicate that cap in place is the  
16 Company's preferred closure method for the active ash  
17 basin in unit 5 ash basin at Cliffside because it's  
18 environmentally protective, unobtrusive, and  
19 economical.

20 And again, this did not end up happening with  
21 this -- at Cliffside because of the settlement  
22 agreement; is that correct?

23 A. Similar to the other sites, this was  
24 submitted on a report for this case -- for this hearing

1 prior to -- after the April 1st order from DEQ, but  
2 prior to the settlement agreement.

3 Q. All right. And just very quickly if we could  
4 go back to Junis Exhibit 1 -- Public Staff Junis  
5 Exhibit 1, which is the settlement agreement.

6 A. I have that one in front of me now.

7 Q. All right. And page 4 talks about Cliffside  
8 under C. Are you there? Okay. It says:

9 "At the Cliffside Steam Station Rogers Energy  
10 Complex, there are two CCR impoundments, units 1-5  
11 inactive ash basin, and the active ash basin; units  
12 1-5, inactive ash basin is approximately 46 acres,  
13 contains approximately 2,350,000 tons of cash, and the  
14 active ash basin is approximately 86 acres and contains  
15 approximately, 5,240,000 tons of coal ash; is that  
16 accurate?

17 A. So yes, except for one thing. I just noticed  
18 this in here. It talks about units 1 through 5  
19 inactive. That should can just be unit 5, because we  
20 have already excavated units 1 through 4. The volumes  
21 that are listed in here for units 1 through 5 inactive  
22 are the unit 5 inactive basin.

23 Q. Thank you for that clarification.

24 All right. We will move on to Dan River.

1 And if you will turn to Hart's Exhibit 52, which is the  
2 June 2009 Dan River environmental audit in support of  
3 the monitor in the federal criminal case; are you  
4 there?

5 A. Yes, I have that in front of me now.

6 Q. Okay. Again, let's go through real quickly  
7 the facility overview so we know which we -- what we  
8 are speaking at Dan River.

9 Dan River, evidently, began operation in 1949  
10 in Eden, in Rockingham County. It has three coal-fired  
11 units that were retired in 2012, units 4, 5, and 6 were  
12 fuel oil-fired combustion turbines installed in '68 and  
13 retired in 2013. In 2012, a gas combined cycle unit  
14 began operation.

15 Is that all -- is that what your  
16 understanding is of the facility?

17 A. Yes, ma'am.

18 Q. All right. And I'm on 3 and 4. We talk  
19 about the actual coal ash areas. And there evidently  
20 was a primary ash basin, a secondary ash basin, ash  
21 fill areas, and a CCP landfill, correct?

22 A. Yes, that is correct.

23 Q. Okay. Also indicates that most of the CCR  
24 from primary ash basin -- from the primary ash basin

1 has been excavated and placed into CCP landfill with  
2 excavation of secondary ash basin expected completed by  
3 May 31, 2019; is that accurate?

4 A. Yes. We were -- at the time that this audit  
5 was, we were -- conducted, we were finalizing the  
6 excavation of the primary and secondary basins.

7 Q. Okay. And that has been completed?

8 A. Yes, it has.

9 Q. Okay. And if we go to 1-9, and it is the  
10 only full paragraph on the page, the very last line;  
11 are you with me?

12 A. Yes.

13 Q. It says the Dan River facility CAMA  
14 groundwater monitoring network consists of 48 wells; is  
15 that correct?

16 A. Yes, that is correct.

17 Q. Okay. And also on 1-10 under the CCR rule,  
18 it advises that the Dan River facility's also subject  
19 to the CCR rule, and that it requires -- and it's on  
20 the second paragraph -- in the second paragraph. It  
21 requires a network of -- let me see, I added it up --  
22 of -- I didn't add it up. Sorry.

23 So there are 20 at the -- for the primary,  
24 including 2 background wells, and 20 monitoring wells

1 for a secondary ash basin; is that correct?

2 A. So it says that the primary and secondary ash  
3 basin well network is 20 with 2 background wells, and  
4 then the CCP landfill -- CCR well network is 20  
5 monitoring wells with 4 background wells.

6 Q. Thank you for the clarification. Okay.  
7 Going back -- or staying with page 1-10 and going also  
8 into 1-11, these are the notices that were posted by  
9 Duke on its website.

10 First of all, there's the April 3, 2018,  
11 notice which indicates the primary ash basin and the  
12 secondary ash basin are in the CCR assessment  
13 monitoring program due to statistically significant  
14 increases over background levels for certain  
15 constituents listed in Appendix 3 to the CCR rule,  
16 correct?

17 A. That is correct.

18 Q. All right. And then the next page on 1-11,  
19 we have the 11/7 -- November 7, 2018, posting which  
20 talks about the fact that the primary ash basin and the  
21 secondary ash basin did not meet the surface  
22 impoundment standard for placement above the uppermost  
23 aquifer. And that Duke anticipates completion --  
24 completely removing all ash from within the ash

1 basin -- primary ash basin and secondary ash basins by  
2 May 31, 2019.

3 So did that occur? Was all of it taken out  
4 by May 31, 2019?

5 A. Just give me a moment, I'll double-check the  
6 dates.

7 Q. Appreciate it. Thank you.

8 A. It was all excavated out of the primary and  
9 secondary basins prior -- to meet our CAMA deadlines.  
10 So if you want the actual date, it will take me a  
11 minute to find that, but I do know that it was all  
12 excavated.

13 Q. That's the most important piece. Thank you.  
14 Going, then, to the December 14, 2018, notice,  
15 indicates that Appendix 4 constituents were detected at  
16 levels above the applicable groundwater protection  
17 standard at the primary ash basin and the secondary ash  
18 basin for arsenic and lithium; is that correct?

19 A. Yes, that is correct.

20 Q. All right. And if we were to go very briefly  
21 to Mr. Hart's testimony on 106.

22 A. (Witness peruses document.)

23 I'm on page 106.

24 Q. All right. And that shows a graph for

1       arsenic at Dan River; is that correct?

2           A.     Yes, it does. And shows two wells for -- two  
3       well results for arsenic.

4           Q.     Right. But the -- okay.

5                   But to confirm what was said by the CAM in  
6       2017 and '18, there was a significant spike during that  
7       particular time; was there not? At least in those  
8       wells?

9           A.     So in that one well, I do see a significant  
10       spike, but without looking at the groundwater data that  
11       comes from the lab and whether there was interference  
12       in there or what was actually going on, because that  
13       does really stand out. So usually when we see things  
14       like that, we go back to the laboratory, sometimes we  
15       have to take an additional sample. Because it might  
16       be a -- it might be that a foreign material got in  
17       there, or something happened during the sampling.

18                   So without going into the lab data and  
19       digging in and understanding, that does kind of stick  
20       out there as an outlier, and we would have to look and  
21       see exactly why there was that spike.

22           Q.     Understood. And you don't dispute the fact  
23       that the CAM found arsenic and lithium at the primary  
24       ash basin and secondary ash basin, do you?

1           A.       So the CAM monitoring report did indicate  
2       that the Company posted on our website that those were  
3       constituents that were found, yeah, above the Appendix  
4       3 and Appendix 4.

5           Q.       Thank you. And if you'll go to page 3-1 of  
6       Hart Exhibit 52.

7           A.       (Witness peruses document.)

8           Q.       Are you with me?

9           A.       I am on page 3-1.

10          Q.       Okay. And under "finding," it says:

11                "Constituents exceeding the standards for  
12       class GA waters established in the 2L rules were  
13       documented in monitoring wells located at or beyond the  
14       compliance boundaries for the primary ash basin, the  
15       secondary ash basin, and the ash fill areas. Based on  
16       the review of the 2018 CAMA groundwater monitoring  
17       analysis, boron, beryllium, cobalt, iron, manganese,  
18       molybdenum" -- I can't say that one -- "strontium, and  
19       sulfate, and total dissolved solids, and vanadium  
20       exceeded either the 2L groundwater standards or other  
21       standards"; is that correct?

22          A.       Yes. And I will say, going back to the very  
23       first audit that was done by the court-appointed  
24       monitor, I went back and looked at the findings. These



1 are historical findings. It's in all of them and all  
2 of the audit reports. So -- and we clearly stated to  
3 the CAM also, these are things that have been  
4 identified, and identified to the state agencies, and  
5 we are working through CAMA regulations in order to  
6 address those impacted.

7 Q. So you're saying that these were found back  
8 in 2015 and they still are there now in 2019?

9 A. So when you go through the court-appointed  
10 monitor results and all of their CAM audits, they -- if  
11 you go year by year and look at the things they found,  
12 these all related to historical operations and  
13 historical groundwater impacts. And we clearly stated  
14 that, yes, these impacts are there. We put them out on  
15 our own website, and we provided those to the state  
16 agencies, and that we are addressing those impacts as  
17 part of the requirements under the Coal Ash Management  
18 Act.

19 So while they are impacts, they're in the  
20 groundwater and have been identified, we wanted to make  
21 sure that the public and others who are looking at the  
22 court-appointed monitor were -- clearly understood that  
23 we know about them, the state knows about them, and we  
24 are work working with the state on what are the actions

1       that we need to take care of -- that we need to move  
2       forward to address those impacts.

3           Q.       All right. But this report from CAM on  
4       page 3-1 indicates that it was based on the review of  
5       the 2018 CAMA groundwater monitoring analysis; was it  
6       not?

7           A.       So when the court-appointed monitor auditors  
8       came out, of course they looked at the information  
9       since the previous audit that they had given out. So  
10      when they are out -- and if I go back to page 1, this  
11      was June 2019, and I'm sure it says in here the date  
12      they were actually out at the sites. April 17th  
13      through the 18th of 2019, of course they would have  
14      looked at the information that was new since the last  
15      audit.

16                  So that's why they specifically call out the  
17      2018, because that was the information they reviewed as  
18      per this audit. But I wanted to make sure that  
19      everyone was aware that this wasn't a brand new  
20      finding. This was something that had been identified  
21      in previous CAM audit reports. It was something that  
22      we had identified to the state, and that we are working  
23      through with the -- underneath CAMA regulations to  
24      address those impacts.

1 Q. All right. Let's move forward to your direct  
2 Exhibit Number 12.

3 A. (Witness peruses document.)  
4 I am there.

5 Q. All right. And if you'll go to page 11 of  
6 that document.

7 A. I'm on page 11.

8 Q. All right. Under 2.2, the third line starts  
9 with:

10 "For the Dan River Steam Station surface  
11 impoundment as defined in the N.C.G.S. 130A-309.201(6)  
12 was interpreted to include only the primary ash basin  
13 and secondary ash basin. However, closure of ash fill  
14 1 and ash fill 2 will be implemented in conjunction  
15 with ash basin closure."

16 Can you -- since -- since the excavation of  
17 ash fill 1 and 2 are not required under CAMA, how did  
18 you separate the cost for the excavation of those areas  
19 that are not surface impoundments?

20 A. So while they were not required under the  
21 Coal Ash Management Act, they were required underneath  
22 what we refer to as the foresight order, which was  
23 June 1st of 2016. It was an order that specifically  
24 addressed Asheville, Dan River, River Bend, and Sutton.

1 And in that agreement, it specifically said that not  
2 only would the Company excavate the ash out of the  
3 primary and secondary ash basins by CAMA deadlines, but  
4 also that the Company would excavate the material in  
5 the ash storage areas by January 1, 2026.

6 Q. This is a consent order with DEQ?

7 A. It was an agreement with multiple parties.  
8 As I'm sitting here today, I think I do actually have  
9 it. If you give me a moment to find it, I can tell you  
10 exactly who it was with, if you give me a moment,  
11 please.

12 Q. Sure. Absolutely.

13 A. (Witness peruses document.)

14 So I found the document. So it did include  
15 the State of North Carolina Department of Environmental  
16 Quality, Catawba Riverkeepers, the Sierra Club, and a  
17 couple other -- Dan River Basin Association, Roanoke  
18 River Basin Association, Southern Alliance for Clean  
19 Energy, Waterkeeper Alliance; but the North Carolina  
20 Department of Environmental Quality was part of this  
21 agreement.

22 Q. All right. But again, the excavation of ash  
23 fill 1 and 2 are not technically required under CAMA;  
24 is that correct?

1           A.     While they are not required under CAMA, they  
2     are required under a consent order or an agreement that  
3     was entered into with the State of North Carolina.

4           Q.     Okay. Understood. One last exhibit for Dan  
5     River. If you'll go to your Exhibit 13, which is the  
6     coal ash excavation plan.

7           A.     (Witness peruses document.)  
8                 I have that in front of me.

9           Q.     All right. If you'll go to page 12, section  
10    X or 10, second paragraph. Are you there?

11          A.     Yes, I'm there.

12          Q.     Okay. It says:

13                 "In October 2018, the CCP project team  
14    decided to change the ash excavation contract at Dan  
15    River due to concerns with excavation performance.  
16    With the contractor change and additional discovered  
17    ash, the projected completion of ash excavation at Dan  
18    River is now targeted for June 1, 2019."

19                 Did I read that correctly?

20          A.     Yes, you did read that correctly.

21          Q.     And did you prepare this document?

22          A.     I did not prepare this document, but it was  
23    prepare in the organization that I am currently in.

24          Q.     Okay. Part of that statement that I read

1        says, "With the contractor change and the additional  
2        discovered ash, the projected completion is now  
3        targeted."

4                What additional ash? What are you referring  
5        to?

6                A.        So while I don't have committed to memory the  
7        actual tonnage related to that, but when you look at  
8        the primary, secondary basins at Dan River, there was a  
9        dike that was put in between both of those. And there  
10       was also, at one time, they increased the height of the  
11       dams and increased the height of the dikes in order to  
12       add more ash in there.

13                And so when we put them together, what  
14        happened is we went in and did our evaluation of the  
15        amount of ash that's in the basin. But one of the  
16        things that we determined as we were doing the  
17        excavation -- this is why I've got both hands free --  
18        is that -- so if this was the edge of the basin and  
19        this is kind of the riverside and here is the dike  
20        (indicating). So when we extended the vertical  
21        expansion of the basin, we ended up adding in the extra  
22        kind of dike right here on top of it (indicating).

23                So the extra ash was the ash that was  
24        underneath that vertical expansion that had not been

1 identified in the very first evaluation of how much ash  
2 was on site, because, when we did our evaluation, it  
3 was based upon what it looked like at the time that we  
4 determined how much ash was in there.

5 So as we were excavating the basin and taking  
6 out that vertical expansion, we saw that there was  
7 additional ash underneath that vertical expansion that  
8 we had to take care of, because it was part of the  
9 basin, so, of course, we had to take care of it.

10 Q. You also indicated that you had concerns with  
11 excavation performance. What kind of concerns did you  
12 see or --

13 A. So this is addressed significantly in my  
14 rebuttal testimony, so I would -- we could pull that up  
15 or we can talk about it in rebuttal. But, in general,  
16 we had a contractor out on site who was having  
17 difficulty handling wet ash. As we got lower,  
18 especially in the primary basin, but also in the  
19 secondary basins, we got lower, we found the ash was a  
20 little bit wetter, a little bit harder to manage than  
21 what we initially thought.

22 Over a period of a significant number of  
23 months we worked with a contractor to see, okay, what  
24 do we need to do? How are we handling the ash? What

1 can we do to get that material out, get it dry so that  
2 we can actually place it in the on-site landfill?  
3 Because if it's too wet, you can't move it. You can't  
4 place it properly. You can't have the compaction that  
5 you need.

6 And so the contractor had a milestone  
7 schedule and was working towards that milestone  
8 schedule, was not meeting the milestone schedule. And  
9 we were working with them trying to come up with what  
10 can we do to help you, what can we do creatively  
11 thinking to move forward. And after a number of months  
12 and a different recovery plans, as they were called,  
13 were implemented, we saw that they were not meeting the  
14 scheduled deadlines.

15 So we had -- we had a regulatory requirement  
16 to meet. So we were looking forward as to what do we  
17 need to do to meet that regulatory deadline. So after  
18 working with this contractor for a number of months, we  
19 looked at it and said we are not seeing that recovery  
20 is taking place. So we ended up moving to another  
21 contractor who had experience at our Sutton sites,  
22 experience working specifically with very wet ash, as  
23 that was -- a lot of that material was dredged, in  
24 order to be able to handle that wet ash and be able to



1 dry it out and get it over to the landfill in order to  
2 meet our regulatory deadline.

3 And although the document stated we are  
4 targeting June 1, 2018, we were able to meet the  
5 regulatory deadline under CAMA for Dan River. And we  
6 actually have that -- we were able to complete the  
7 excavation of those two basins in May of 2019.

8 Ms. Townsend, you're on mute.

9 Q. Thank you. Regarding that particular  
10 statement, in your summary, you state that the Company,  
11 quote -- I'm referring to Dan River -- that, it has  
12 begun the processing of closing the CCR landfill, end  
13 quote, and have excavated 1,426,200 tons of ash from  
14 the plant's primary and secondary ash basin.

15 So I'm not sure, was it completed or was it  
16 not completed? Or is it still -- are you still closing  
17 or are you closed?

18 A. So we finished excavation. So after you have  
19 finished excavation of the basin, there's a couple of  
20 steps that you have to finalize for the closure of the  
21 landfill, itself. So once you move all the material  
22 onto the landfill, you have to put a synthetic liner on  
23 top of that, and then you have to put the layer on top  
24 of that, whether it's a synthetic turf or a soil layer

1 on top of it. So the work that's ongoing now -- and  
2 actually a couple months ago, I don't remember the  
3 exact date as I sit here today, but we finished what we  
4 call blacking out the landfill, which is getting that  
5 synthetic liner across the entire landfill. And now  
6 we're in the process of putting that final layer on top  
7 of the landfill of a turf in order to stabilize the  
8 area.

9 So while excavation was complete, there are  
10 other steps for closing the on-site landfill that are  
11 ongoing to make sure that that landfill is meeting the  
12 regulatory requirements for an on-site landfill, and  
13 that all the ash is stabilized on site. Ms. Townsend,  
14 you're on mute.

15 Q. Let's turn to Marshall, which is  
16 Exhibit 53 -- Hart's Exhibit 53 -- for the CAM report.  
17 And I will go through it as quickly as possible. Are  
18 you on 53?

19 A. Yes, I am there.

20 Q. All right. Basically the Marshall facility  
21 began operations in '65 at Catawba County. It has four  
22 coal-fired plants in an FGD system that was placed in  
23 operation in 2007; is that correct?

24 A. Yes, that is correct.

1 Q. All right. And under the ash management  
2 places, 1-3 and 1 -- it actually goes to 1-5. We have  
3 an active ash basin, an industrial landfill number 1,  
4 an FGD landfill, dry CCP landfills, coal combustion  
5 products, correct? A photo full pike, a structural  
6 fill, Marshall Steam Station Road structural fill, and  
7 that is it; is that correct?

8 A. Yes, that is correct.

9 Q. All right. And according to the CAM report  
10 on 1-15, it indicates that -- right at the top, that  
11 the CAMA groundwater monitoring network consists of  
12 sampling 88 wells quarterly and 59 wells semi annually;  
13 is that correct?

14 A. Hold on one moment, I'm still turning the  
15 page. You said page --

16 Q. Sorry. All right. So what it showed was  
17 that there are 88 wells quarterly and 59 wells being  
18 monitored semi annually for the CAMA groundwater  
19 monitoring network.

20 A. Yes. That's what it shows on 1-14 and 1-15.

21 Q. Do you know of any different than that?

22 A. I do not know of anything different than  
23 this.

24 Q. All right. And if we go to 1-11, dash 1-11

1 and 1-12, it talks about the fact that there are 32  
2 downgradient wells and 4 background wells, and  
3 currently sampling an additional 11 monitoring wells to  
4 assist in the CCR characterization for the CCR  
5 groundwater monitoring network; is that correct?

6 A. Yes, that is correct.

7 Q. All right. And can you explain DEC's purpose  
8 in assisting, quote, to assist the CCR  
9 characterization?

10 A. So Mr. Wells should be able to answer that.  
11 I don't know that specific information for Marshall.

12 Q. All right. And then if we go to 12 and 13,  
13 we have the notices. And let's quickly go through  
14 those. On February 27, 2018; do you see that?

15 A. Yes. I am on that first paragraph.

16 Q. And that shows that Marshall is also under  
17 the assessment monitoring program for CCR due to  
18 statistically significant increases over the background  
19 values of the Appendix 3 parameters, correct?

20 A. It states that, for the active ash basin and  
21 the ILF, the industrial landfill number 1, that those  
22 postings went out February 27, 2018.

23 Q. Thank you. And then on November 7th, '18,  
24 another posting indicated that the active ash basin did

1 not meet the surface impoundment standard for placement  
2 above the uppermost aquifer and for wetlands; and  
3 again, failure to meet those, require it to cease  
4 placing those waste streams into the active ash basin  
5 and begin closure by April 12, 2019; is that correct?

6 A. Yes, that is correct.

7 Q. And was that done?

8 A. Yes.

9 Q. All right. And then on December 14, 2018,  
10 these are when the Appendix 4 constituents that were  
11 detected at levels above the applicable groundwater  
12 protection standard were posted, correct?

13 A. Yes, ma'am.

14 Q. And it appears they were all at the active  
15 ash basin and the industrial landfill number 1, phase  
16 1, cells 1 through 4, correct?

17 A. Correct.

18 Q. All right. And we've got arsenic, beryllium,  
19 cobalt, lithium, thallium, radium 226 and 228 combined,  
20 correct?

21 A. Yes.

22 Q. And again, DEQ found additional contaminants;  
23 did they not? If you'll go to --

24 A. Ms. Townsend, that's a very broad question,

1 so if you --

2 Q. No, I totally -- I apologize. If you'll go  
3 to AGO Cross Exhibit 16, which is the Marshall Steam  
4 Station CCR surface impoundment closure determination.

5 A. I have that in front of me.

6 Q. Okay.

7 MS. TOWNSEND: Chair Mitchell, we would  
8 like to have that marked as AGO Bednarci k Direct  
9 Cross Exhibit 6.

10 CHAIR MITCHELL: All right. The  
11 document will be so marked.

12 MS. TOWNSEND: Thank you.

13 (AGO Bednarci k Direct Cross Exhibit 6  
14 was marked for identification.)

15 Q. And if you'll turn to page 10 of that  
16 exhibit, Ms. Bednarci k.

17 A. I'm on page 10.

18 Q. Okay. And let's just go to the -- right  
19 before Roman numeral II, there's a paragraph that says:

20 "DEQ concludes that the contaminated  
21 groundwater plume above 2L groundwater standards has  
22 extended beyond the compliance boundary along the  
23 northern and eastern edge on the shore of Lake Norman";  
24 is that correct?

1 A. Yes.

2 Q. Okay. And a little bit above that --

3 MR. MARZO: Chair Mitchell, I'm just  
4 going to renew my objection. I mean, if we're just  
5 simply just going to read the document, I mean, I  
6 think we can all agree the document says what it  
7 says. If there's a question connected to what the  
8 document says, I mean, I think that's a  
9 different -- maybe a different story. But for at  
10 least a large part of the cross, we've just been  
11 reading and confirming what a document has already  
12 written on its face. And some of these are  
13 official government documents.

14 CHAIR MITCHELL: All right.

15 Ms. Townsend, how do you respond?

16 MS. TOWNSEND: Well, I agree that they  
17 are official documents, but also there is a lot of  
18 documents in this case, and for everybody to read  
19 every page that's been put in the record would be  
20 extremely difficult. I think there are some pieces  
21 of the record -- or some pieces of information that  
22 should be put in the record directly. And in --  
23 and regarding DEQ's findings, I think those are  
24 significant.

1 CHAIR MITCHELL: All right.

2 Ms. Townsend, I'm going to allow you to proceed,  
3 but please move along as quickly and efficiently as  
4 you're able at this point.

5 MS. TOWNSEND: I am. I will. Thank  
6 you.

7 Q. All right. Let's go back to Exhibit 53. Go  
8 to page 3-1, and you'll find that it says under  
9 "finding," that:

10 "Based on the review of the 2018 and 2019  
11 CAMA groundwater monitoring analysis, pH, boron,  
12 cobalt, iron, manganese, sulfate, total dissolved  
13 solids, and vanadium were all observed to exceed the 2L  
14 standards"; is that correct?

15 A. Yes, that's correct. And just like all the  
16 other court-appointed monitor audit reports, these are  
17 findings that were found in previous years because it's  
18 related to historical documents and historical impacts,  
19 and we are working with CAMA -- working under CAMA with  
20 NCDEQ to resolve these.

21 Q. All right. And your Exhibit 8 will indicate,  
22 as it did with the other facilities that were under  
23 these settlement agreement, that you originally wanted  
24 to -- or the Company wanted to cap in place this



1 facility, correct, and that it's not being excavated;  
2 is that correct?

3 A. Well, whenever the initial direct testimony  
4 was submitted, yes, the Company was planning on capping  
5 in place upon approval from DEQ. Of course, DEQ has  
6 the authority under CAMA to choose what is the final  
7 remedy. I will say, as part of the settlement  
8 agreement, there are some areas that will not be  
9 excavated. They're underneath lined areas, so it is --  
10 we will be excavating, but not all the ash on the site.

11 Q. Thank you. And almost done. We have two  
12 more facilities and these are both short.

13 If you turn to Exhibit 54, which is the CAM  
14 for River Bend.

15 A. I have that in front of me.

16 Q. All right. And an overview is that the  
17 facility began operation in 1929 in Mount Holly on 420  
18 acres expanding to 7 coal-fired units which were  
19 retired by 2013.

20 May I ask how those units were retired, the  
21 process used?

22 A. So when the units were retired, they were  
23 demolished and decommissioned, taken out of operation.  
24 So if you go out to the site today, you will see a big

1 grassy area. And actually, there is a new building  
2 right where the old powerhouse used to be.

3 Q. And was any decanting, dewatering done? What  
4 happened to all that ash?

5 A. So the ash at the River Bend site was one of  
6 the high priority sites under CAMA, so it has been  
7 excavated. Because of the situation of the site, and  
8 it is in a restricted groundwater classification, a  
9 critical watershed, we were not able to build an  
10 on-site landfill. So all of that material did go off  
11 for final disposition off site.

12 Q. And again, we'll find, in the CAMA report,  
13 that there's a CAMA groundwater monitoring network  
14 consisting of sampling 23 wells quarterly and 68 wells  
15 semiannually; does that sound correct, subject to  
16 check?

17 A. Ms. Townsend, can you just tell me which page  
18 you're looking at, please?

19 Q. Yes, 1-9.

20 A. (Witness peruses document.)

21 I do see under CAMA there are 23 wells  
22 sampled quarterly and 68 wells sampled semiannually  
23 beginning the first quarter of 2019.

24 Q. Okay. And because of the fact that the River

1 Bend facility has not generated electricity since prior  
2 to October 19, 2015, it's not subject to the CCR rule,  
3 correct?

4 A. Yes. Based upon the current rule, yes.

5 Q. All right. You were aware that the Company  
6 was found in violation of the Clean Water Act at the  
7 River Bend facility in the 2015 federal case, correct?

8 A. Yes.

9 Q. All right. And subject to check, if you  
10 would -- I won't make you go to Hart Exhibit 3, but  
11 paragraph 154 on page 49 states that the unpermitted  
12 seep -- this is referring to River Bend.

13 "The unpermitted seep resulted in documented  
14 unpermitted discharges from 2011 through 2013  
15 containing elevated levels of arsenic, chromium,  
16 cobalt, boron, barium, nickel, strontium, sulfate,  
17 iron, manganese, and zinc into the Catawba River."

18 And then paragraph 155 says:

19 "Unpermitted discharges in violation of the  
20 applicable NPDES permit occurred at River Bend from at  
21 least November 8, 2012, through December 30, 2014."

22 Do you have any reason to dispute those  
23 facts?

24 A. So I don't have that document in front of me,

1 so subject to check. I also know that was discussed  
2 significantly in the last case in front of this  
3 Commission, so yes.

4 Q. Okay. Let's move on to W.S. Lee, our last  
5 facility. And if you'll look at Mr. Hart's Exhibit 55,  
6 it is the March 2019 environmental audit in support of  
7 court-appointed monitor in the federal criminal case.  
8 And pages 1 to 2 give us a facility overview.

9 It says it began operation in 1951 in Belton,  
10 South Carolina. It has three coal-fired units, units 1  
11 and 2, which were retired in 2014, and unit 3 converted  
12 to natural gas in 2015; is that correct?

13 A. Yes, that's correct.

14 Q. All right. And the coal ash management areas  
15 evidently consist of -- which is on 1-3 and 1-4 -- an  
16 inactive ash basin, an ash fill area/borrow area, a  
17 primary ash basin, a secondary ash basin, and an  
18 interim structural fill or dry stacking area; is that  
19 correct?

20 A. Yes.

21 Q. All right. And then your closure plans  
22 evidently call for construction of a class 3 landfill  
23 in the approximate footprint of the secondary ash  
24 basin. Is that still the plan?

1           A.     Yes. That is to hold the material that is  
2     coming out of the primary ash basin and the secondary  
3     ash basin.

4           Q.     All right. And just going to the December --  
5     well, 11/7/18 notice which is on page 1-9 and 1-10, it  
6     indicates that the primary ash basin and secondary ash  
7     basin did not meet the surface impoundment restrictions  
8     for placement above the uppermost aquifer under the CCR  
9     rule, correct?

10          A.     Yes, that's correct.

11          Q.     All right. And then on 12/14/18, the  
12     Appendix 4 constituents that were detected at levels  
13     above the applicable groundwater protection standard  
14     were antimony, beryllium, cobalt, and lithium; is that  
15     correct?

16          A.     Yes.

17          Q.     Okay. And you said in your testimony, on  
18     page 24, that the Company is closing the ash storage  
19     areas at W.S. Lee by excavation, correct?

20          A.     So yes, the -- the -- let me try again. The  
21     inactive -- the IAB, the inactive ash basin, and the  
22     AFA have both been excavated. And then as I mentioned  
23     before, the secondary ash basin, the primary ash basin  
24     will find -- we're building a new landfill inside the

1 footprint of the secondary ash basin. We've moved  
2 everything out of there so that we could build that  
3 landfill. It's been moved to the primary, and that is  
4 where the material from those two basins will end up.

5 Q. Okay. And if you -- very quickly, last  
6 exhibit, Cross Exhibit 1, AGO Bednarcik Cross  
7 Exhibit 1, if you'll go to page 9 of that document  
8 rather than to our tables on 11 and 12.

9 A. If you can remind me what Cross Exhibit 1 is  
10 again?

11 Q. I'm sorry, it's AGO Original Exhibit 25. I  
12 apologize.

13 A. (Witness peruses document.)

14 I have that now.

15 Q. All right. And at the top of this document,  
16 it indicates that:

17 "As it relates to other EHS costs at each  
18 site, please provide an explanation for the costs  
19 incurred and the purpose of costs being incurred."

20 If you would just very briefly explain to us  
21 the costs that are listed for W.S. Lee under state  
22 agency court order settlement agreement requirement.

23 A. I'm sorry, I lost the page number. Can  
24 you --

1 Q. That's all right. It's page 9 of AGO  
2 Exhibit 25, which is Cross Exhibit 1. And there's a  
3 table.

4 A. (Witness peruses document.)

5 Thank you. I was on the wrong page. So on  
6 page 9 for the W.S. Lee site for state agency court  
7 order settlement agreement requirements, groundwater  
8 well installations, post-excavation soil sampling  
9 analysis, assessment reports, and baseline risk  
10 assessment per South Carolina DHEC consent agreement.

11 Q. And can you explain very briefly for us what  
12 that entails?

13 A. So it entails the installation of wells  
14 after -- post excavation, and the wells that are --  
15 assessments that are required underneath our consent  
16 order with South Carolina DHEC. And we are working in  
17 conjunction with South Carolina DHEC as we are  
18 submitting to them our baseline risk assessment, our  
19 monitoring well network, what we have out at the  
20 facility, and working them to ensure that we are  
21 installing wells where needed.

22 If they ask us -- very similar to  
23 North Carolina, if they ask us to install more wells,  
24 we do. We provide them with all of our data. All of

1 the requirements that are underneath that consent order  
2 and at the direction of South Carolina DHEC.

3 Q. Okay. And final question, on page 7 of that  
4 document, okay, second to the last paragraph, it says:

5 "At Buck, Dan River, and Marshall, stormwater  
6 the projects were completed or scheduled to be  
7 completed from January 1st, '18, to January 31, 2020.  
8 These projects were executed to stop flows to the  
9 basins."

10 And if you could briefly explain or describe  
11 these. I know -- I believe you have described some of  
12 these. Are these like the retention basins you  
13 referred to earlier? And why would they have only been  
14 at those three particular sites?

15 A. So I would have to -- let me see if I can go  
16 back to the original question and see why we would have  
17 answered that specifically. So if you give me a  
18 moment, please.

19 Q. Certainly.

20 A. (Witness peruses document.)

21 So -- and as I'm going back through, this was  
22 a very extensive data request, and it was responded in  
23 multiple areas, so I do remember actually putting this  
24 one together. And I think, as I'm going back and



1       trying to refresh my memory as to it, there were other  
2       responsive documents that may have covered additional  
3       sites under C1111 and 2D111 that were addressed in  
4       other documents that were provided and discussed  
5       earlier in that narrative.

6               My guess, and this is going off of memory as  
7       we were going through and making sure we were  
8       responsive to all the documents and all the questions,  
9       we noticed that in those other responsive documents,  
10      there may have been something that we felt was not 100  
11      percent clear or specifically related to Buck, Dan  
12      River, or Marshall.

13             So based upon where I'm sitting today and  
14      going back through when we submitted this, that's  
15      probably why we called it specifically out and we said  
16      additional responsive documents. I do know that Buck,  
17      Dan River, Marshall, other locations per CAMA, per the  
18      CCR rule, we had to stop flows to the basin. That was  
19      not only processed water but also stormwater.

20             We ended up removing all of the processed  
21      water, stormwater, water that came out from the  
22      operating units at the retired units that may have not  
23      been receiving processed water. We had to remove  
24      stormwater from those units as well. So depending upon

1 the current state where they're at is where -- how we  
2 determined whether it went to the ARO, or to a capital  
3 if it was related just to the basin or related to the  
4 operation of the plant. And, I mean, it was required  
5 to remove all flow.

6 So there was probably something that was not  
7 as responsive in the other areas, and that's why we  
8 called those out specifically.

9 Q. Thank you for that clarification.

10 MS. TOWNSEND: No further questions,  
11 Chair.

12 CHAIR MITCHELL: All right. Sierra  
13 Club?

14 CROSS EXAMINATION BY MS. CRALLE JONES:

15 Q. Good morning, Ms. -- or it's almost  
16 afternoon. We're almost there. Ms. Bednarcik, my name  
17 is Cathy Cralle Jones, and I represent Sierra Club in  
18 these proceedings. I wanted to go back just a little  
19 bit by starting to get just a better understanding of  
20 your history with Duke.

21 On page 3 of your testimony, you describe  
22 your beginnings there. You started in 2005 with Duke  
23 in the environmental engineering group that then became  
24 the waste and remediation management group in 2006; is

1       that correct?

2           A.     Yes, that is correct.

3           Q.     And was that role focused primarily on  
4       manufactured gas plant remediation projects?

5           A.     So when I started with the Company in 2005,  
6       it was in the environmental engineering group, and that  
7       group handled really any larger projects or engineering  
8       projects that covered the realm of environmental  
9       aspects. And then after the merger with Progress -- or  
10      with Synergy, it changed in name, but the focus was  
11      still the same.

12                So looking at waste and remediation  
13      management, we handle -- the group as a whole handled  
14      siting of new landfills, groundwater monitoring. It  
15      handled underground storage tanks, cleanup of  
16      underground storage tanks; closure of substations, and  
17      making sure if there was any oil that leaked out of any  
18      transformers, that that was cleaned up appropriately.  
19      We actually also handled if a car ran into a pole and  
20      material came out from of a transformer, cleaning up  
21      that material. It did also occur that we handled the  
22      manufactured gas plant cleanups as well.

23                So it really was anything related to, kind  
24      of, not the day-to-day compliance of operating our

1 plants, but more so of those other areas outside of  
2 compliance. I do remember one of the first things I  
3 did when I came in 2005 was going to the Dan River  
4 site, going up to the ash stacks and taking samples out  
5 of pour water in the ash stacks.

6 So when I first started with the Company, I  
7 did a wide variety of things in the environmental area,  
8 including some ash work, including some manufactured  
9 gas plant work, underground storage and PCBs. And then  
10 after the merger with Synergy, while my focus really  
11 turned to manufactured gas plants and the cleanup of  
12 manufactured gas plants, and anything else that was  
13 kind of -- that came up that was outside of the  
14 operations that may have been found at an operating  
15 plant or somewhere else.

16 The group I was in did continue doing the  
17 evaluation of groundwater at our coal ash basins,  
18 groundwater around our sites. It also continued to do  
19 things such as siting of landfills and working with the  
20 organization that did a structural fills and permitted  
21 structural fills and permitted areas underneath yours.  
22 So that was part of the group I was in, and that was  
23 all things we discussed as part of the organization as  
24 a whole.

1 Q. So would you consider that firsthand  
2 responsibility for coal ash management in 2005?

3 A. So, in 2005, I would not consider it as  
4 firsthand, but I am not new to the coal ash world. I  
5 have been working with coal ash in different areas for  
6 quite a long time. Again, while I did focus  
7 significantly on MGP, manufactured gas plant cleanups  
8 for a period of time, coal ash work related to  
9 groundwater monitoring, related to discussions that we  
10 would have with our operations -- with our operation  
11 personnel, that was part of the group I was in. And so  
12 it was not -- it's something that I have been involved  
13 in, as you mentioned, not firsthand, but part of the  
14 group that I was part of, so it was not new to me.

15 Q. Okay. And then around August of 2013, you  
16 became the manager of the remediation and  
17 decommissioning group at Duke Energy; is that right?

18 A. Yes.

19 Q. I'm going to mute myself for a moment. I'm  
20 in downtown Raleigh right across from the fire station.  
21 I apologize for the background noise.

22 A. So yes, and this was after the merger with  
23 Progress Energy, I became the manager. And I was a  
24 working manager, so I had projects that were underneath

1 me at the same time of the remediation and  
2 decommissioning. So it was again really focused on the  
3 remediation of impacts related to underground storage  
4 chains, manufactured gas plants, PCB areas. Kind of  
5 anything that was -- that needed to be taken care of  
6 that we were working with state agencies on determining  
7 what needed to happen and moving forward.

8 And then on the decommissioning side, I had a  
9 couple of gentlemen who worked for me, were focusing,  
10 working with our decommissioning group on the proper  
11 demolition, what needed to happen to make sure that the  
12 demolition of the buildings was addressed to meet all  
13 of our regulatory requirements. So if they found PCBs  
14 in caulking, or lead-based paint. Also at some of our  
15 locations we were allowed to put material, inert  
16 material in the bottom of the basement as fill per a  
17 permit with the state. So working with the state  
18 agencies to ensure that the demolition of those sites  
19 was handled in such a manner that they would meet all  
20 the regulatory requirements.

21 Q. So that was after the merger. So you would  
22 have had some responsibility for both the Duke Energy  
23 Carolinas and the Duke Energy Progress plants; is that  
24 correct?

1           A.     That is correct.

2           Q.     So that sounds like it's a different level of  
3 management. So would you say, by 2013, that was your  
4 first direct responsibility for coal ash management  
5 issues and decisions?

6           A.     So, in 2013, the demolition, the area after  
7 the merger with Progress Energy, I would say it wasn't,  
8 again, direct for coal ash management; but there was,  
9 of course, as we were looking at demolition, I knew  
10 about the ponds. I was still in the environmental  
11 group working very closely -- reported up to the same  
12 director as the gentleman who had -- was continuing to  
13 look at groundwater around the basins and working with  
14 the plants related to the basins.

15                 So we would discuss it in site meetings, we  
16 would discuss it in staff meetings. They would come by  
17 periodically, bounce ideas off of me based upon my  
18 experience. But I would not say direct oversight on  
19 coal ash.

20           Q.     And at that time, how many plants had ash  
21 basins in need of closing for the Duke Energy Carolinas  
22 group?

23           A.     So I'm not quite sure what you're asking. If  
24 you could ask it --

1           Q.     If you were -- you were in the  
2     decommissioning role, you-all are having to figure out  
3     which plants have been or are online for  
4     decommissioning and then what goes with that. So I'm  
5     trying to figure out how many at that point.

6                     And just subject to check, I think at that  
7     point, wouldn't it have been Allen -- maybe the ones  
8     we've talked today -- Belews Creek, Buck, Cliffside,  
9     Dan River, Marshall, River Bend, and W.S. Lee, so  
10    that's nine?

11          A.     I'm not quite sure what you're asking. I do  
12    know that, in that time period -- I'm going off of  
13    memory -- I remember going out to the Buck site and  
14    looking at what needed to be done to take down the  
15    building at Buck, also at Dan River and also at River  
16    Bend. I believe it was also during that time H.F. Lee  
17    and some at Sutton, but I'm going off of memory right  
18    now.

19          Q.     And you were in that position at the time of  
20    the Dan River spill in February of 2014, correct?

21          A.     Yes, I was.

22          Q.     And that plant was one of those that were  
23    under your charge for decommissioning at that time?

24          A.     So again, under -- I was -- my group had two



1 people that worked with the decommissioning group to  
2 provide environmental support for decommissioning. So  
3 when you say under the charge of decommissioning, there  
4 was a decommissioning group that was executing the  
5 work, and my organization was part of a support  
6 organization to support them as they were taking down  
7 those buildings.

8 Q. Do you know about -- again, we've kind of  
9 gone through it today with Ms. Townsend, how many ash  
10 basins for each of those facilities. Subject to check,  
11 I'm counting about 17 total surface impoundments when  
12 you look at those 9 facilities. Would that be --  
13 subject to check, is that approximately correct?

14 A. Yes. So at all of the facilities, there are  
15 17 surface impoundments.

16 Q. During that same time period while you're  
17 manager of remediation decommissioning, did you say  
18 that you also served as a corporate witness for  
19 insurance recovery efforts, including depositions? Did  
20 I hear that earlier? I apologize if I misheard.

21 A. So during that time frame, I did -- I was a  
22 witness and did have depositions for a manufactured gas  
23 plant insurance item that was going on in other states.

24 Q. So that was not related to insurance claims

1 related to the coal ash impoundments?

2 A. It was not.

3 Q. And then in January of 2015 through  
4 August of 2016, you became the director of  
5 environmental health and safety risk compliance  
6 assurance.

7 The CCR rule was adopted in 2015, correct,  
8 about that same time?

9 A. Yes.

10 Q. Okay. As director of that group, did you  
11 have responsibility for overseeing implementation of  
12 the CCR rule?

13 A. So as that group, over that group, my  
14 responsibilities is that we were focused on a couple of  
15 different areas. One was environmental health and  
16 safety risk evaluation. So determining, both at a  
17 plant level, where are there health and safety and  
18 environmental risks; how are they being managed; are  
19 they being managed appropriately; are they being  
20 addressed appropriately, not only at a plant level, but  
21 on a system level, and then also at a -- kind of a  
22 higher level, a corporate level? So it was really we  
23 were focused in on what are those risks out there and  
24 were they properly being managed.

1           The other thing that that group was involved  
2           with was all of the audits. So we did take the CCR  
3           rule, and we took CAMA, and the audit team would  
4           conduct audits -- environmental health and safety  
5           audits to ensure that we were in compliance with the  
6           rules and regulations. Not only CCR and CAMA, but, of  
7           course, all of our state compliance obligations.

8           Also my team that reported to me was directly  
9           involved with setting up the CAM audits. So I remember  
10          actually having that first meeting with the CAM trying  
11          to determine how are these audits going to be actually  
12          done. So it was setting up how they would be done,  
13          what was the frequency, the coordination back and  
14          forth, coming on site, how many days, how to have  
15          meetings beforehand, what the CAM auditors needed to  
16          see, making sure we were ready for the CAM auditors as  
17          well, be able to provide the information they needed to  
18          see as part of those audits. So that was the scope of  
19          my responsibility when I was over that group.

20          Q.       But in this proceeding, you've been deferring  
21          to Mr. Wells regarding CCR details, even though you  
22          were part of that audit and part of that  
23          implementation?

24          A.       So I've been referring to Mr. Wells

1 specifically related to groundwater. So groundwater  
2 specifics and our compliance with groundwater  
3 regulations throughout the years, Mr. Wells is much  
4 more versed on that as a whole. But for implementation  
5 of the CCR rule or CAMA based upon what we are required  
6 to do under those, making sure we meet all of our  
7 regulatory commitments in my current role.

8 Coming into this current role, of course, I  
9 dug deep into all those commitments, making sure -- my  
10 job is to make sure, especially since I'm over  
11 operation maintenance and governance, is that,  
12 especially in that governance role, I am the one, and  
13 my team, look at the rules and regulations. And as we  
14 are executing the work on the site, to ensure are we  
15 meeting the requirements of those rules? Are we  
16 meeting the requirements of the permits that we are  
17 getting, whether they're for the dam safety  
18 organization, or DEQ as a whole, or DHEC, or even in  
19 other jurisdictions in Indiana and down in Florida, to  
20 make sure that we know the rules and regulations, that  
21 the work that's being conducted meets those rules and  
22 regulations in a timely manner to meet those  
23 obligations. And also correspondence, as needed, back  
24 and forth with the agencies.

1 Q. And that's a perfect segue, because I was  
2 going to ask you about your current role, and that's --  
3 you've been there since February of 2019.

4 And in your testimony, you defined your  
5 team's responsibilities including working to, quote,  
6 define, establish, and maintain fleet CCP standards,  
7 correct?

8 A. Yes.

9 Q. That's your testimony?

10 A. Yes.

11 Q. When was the CCP operations, maintenance, and  
12 governance group established?

13 A. So Mr. Kerin, in the last case, was over that  
14 group as well. It was actually a combination of two  
15 groups. When -- after Dan River happened, there was a  
16 separate organization that was set up -- two  
17 organizations. One was called CCP, one was called  
18 ABSAT, the ash basin strategic action team. I think  
19 that was the acronym. Was set up to make sure that we  
20 had clear understanding, clear oversight, clear  
21 direction for implementation of the requirements that  
22 we needed to take forward with CAMA and the CCR rule.

23 And so the CCP group was set up at that time.  
24 Over a couple years, that the ABSAT group was more in

1 the CCP, so we had one group, clear understanding of  
2 who had accountability. And at the beginning, there  
3 was an operation and maintenance group and a governance  
4 group, but slightly before I came to the organization  
5 and took over the role for Mr. Kerin, they combined  
6 those two organizations into one.

7 Q. Was that in about 2018; would that be about  
8 right?

9 A. Yes. Around that time is when they combined  
10 the two organizations. But those organizations had  
11 been in place in the -- subject to check, around the  
12 2014, 2015 time frame.

13 Q. Okay. And you used the term just now to make  
14 sure you had clear oversight. Prior to the  
15 establishment of this team, did the Company have  
16 fleet-wide standards for the operation and maintenance  
17 of its coal ash ponds?

18 A. So it -- the maintenance of the coal ash  
19 ponds was underneath each individual power plant, and  
20 fossil/hydro organization with support from others,  
21 including the environmental health and safety  
22 organization. Of course, audits were done in those  
23 areas to make sure we were meeting the rules and  
24 regulations in place at the time prior to the passage

1 of CAMA and CCR. So we did have support from  
2 environmental health and safety audits of those areas  
3 to ensure that we were meeting compliance, but the  
4 actual operations of those basins was under the  
5 fossil/hydro organization with support, and with  
6 support from other organizations.

7 Q. So no fleet-wide standards, other than  
8 compliance; is that -- is that fair?

9 A. So I know that there is quite a few documents  
10 that -- in the last case and in this case that have  
11 been put forward. There was, again, a cross-functional  
12 group that would meet that would talk about what is the  
13 current standards; what is coming in the horizon. I  
14 believe that one of the things, as we discussed in the  
15 last case and has been put up as one of the things that  
16 might be discussed in this case, are our 10-year plans.

17 So that shows that the Company did have a  
18 cross-functional group that came together to look at  
19 current regulations, trying to forecast forward, what  
20 we need to do at our basins to make sure that we can  
21 continue operations. Then do we have enough land on  
22 the sites to be able to handle the ash that was  
23 produced? There was also standards that came out from  
24 the environmental department that said structural

1 fills, this is what you can or cannot do. Fills that  
2 happened under the 1700 hundred rule, or the  
3 distribution of residual solids permit.

4 On a state-by-state basis, there was clarity  
5 as to how do you operate and what needs to be done at  
6 each one of these. So while there wasn't a CCP  
7 organization like there is today, there was clear  
8 understanding and collaboration between all the  
9 organizations as to what was going on, what needed to  
10 happen at our sites to continue operation and to meet  
11 the regulatory requirements. And also looking forward  
12 as to what we think might be coming so that we are  
13 prepared when it actually does come, that we would be  
14 able to address it at that time and move forward with  
15 meeting those requirements.

16 Q. So you mentioned the 10-year plans. I think,  
17 based upon the prior hearing, there was a 2003 Duke  
18 Energy Carolinas 10-year plan that included  
19 recommendations to avoid mercury, selenium, sulfate,  
20 and cadmium contamination, the Company would need to  
21 stop using unlined basins.

22 Do you recall that language or those  
23 directives?

24 A. So I don't recall. I don't have those



1 documents committed to memory, focused on specific  
2 years. So I would also say that, I mean, we have our  
3 compliance boundary. So what would happen is  
4 recommendations would come forward, we would work with  
5 our regulators, we would look and see where things are  
6 with the compliance boundary, look at our groundwater  
7 monitoring, talk to your regulators in order to  
8 determine what needed to go forward.

9 Recommendations -- as for anything,  
10 recommendations are brought forward, they're evaluated,  
11 and then decisions are made.

12 Q. And subject to check, this recommendation in  
13 2003 to stop using unlined basins, that plan was not  
14 implemented; is that correct?

15 A. So I don't have --

16 MR. MARZO: Madam Chair, I would just  
17 object. There are so many documents in this case,  
18 including 10-year plans. To the extent the witness  
19 is being asked a question specific to that plan  
20 like this, it should not be a subject-to-check  
21 question. The document needs to be provided.  
22 There is enough documents that have already been  
23 provided.

24 MS. CRALLE JONES: I'll move on. I've

1 got -- we'll talk specifically about some of the  
2 documents a little bit later.

3 CHAIR MITCHELL: All right. You may  
4 proceed. And, Mr. Marzo, we've lost your video  
5 connection, so please double-check your video  
6 connection.

7 MR. MARZO: Can you see me now,  
8 Chair Mitchell?

9 CHAIR MITCHELL: Now we can.

10 Ms. Cralle Jones, you may proceed.

11 Q. And then on page 4 of your direct, you state  
12 that:

13 "The purpose of my testimony is to explain  
14 how Duke Energy Carolinas' compliance actions since  
15 January 1, 2018, have been and continue to be  
16 reasonable, prudent, and cost-effective approaches that  
17 comply with regulatory requirements."

18 Your testimony was the only testimony  
19 submitted with the Company's application that addressed  
20 in any detail the coal ash cleanup costs; is that  
21 correct?

22 A. Yes, that is correct.

23 Q. And in their testimony that we've heard  
24 previously, both Mr. De May and Mr. Immel defer to you

1 as to knowing the most detail about coal ash.

2 Is it fair to say that you are the Company's  
3 witness for coal ash in this case?

4 A. Yes. Although Mr. Wells is going to be -- we  
5 brought forward Mr. Wells to talk a lot more about the  
6 groundwater area. But for the implementation for coal  
7 ash, yes, I am the witness.

8 Q. Okay. So in this proceeding, the Company has  
9 not presented testimony by any witness with any  
10 firsthand knowledge of its coal ash management  
11 practices before that 2013 time period for you; is that  
12 correct?

13 A. So the Company has not offered up someone  
14 prior to 2013. I do know that our historic operations  
15 was discussed significantly in the last case, and I  
16 know also, as we were getting data requests in and saw  
17 the intervenor testimony, a lot more questions came up  
18 on our past practices prior to 2012, 2013. And so I  
19 did look through the documents, talked to people that  
20 are still with the Company, if they are still with the  
21 Company, but very few, very, very few that are still  
22 with the Company. But I dug into the historical record  
23 in order to make sure that I felt comfortable with the  
24 information that Mr. Kerin gave last time related to

1       our historical practices. And also be able to say yes,  
2       based upon my review of what the Company did, and based  
3       upon the documents that are available, that I would be  
4       able to testify.

5           Q.       So for this proceeding, does the Company  
6       consider its pre-2018 actions with respect to coal ash  
7       management relevant here?

8           A.       So for this proceeding, which for DEC was to  
9       cover the costs incurred between 1/1/18 and 1/31/2020,  
10      that is why, in my direct testimony, we really focused  
11      on the actions that had gone forward during that time  
12      period, or had planned to go forward during that time  
13      period. Again, as I mentioned, we saw a lot of data  
14      requests, a lot of questions that came through related  
15      to past actions.

16                   My understanding as to reading the last order  
17      is that those past actions were discussed and were  
18      actually ruled upon by the Commission. So that's why,  
19      in my direct testimony, we really focused on the costs  
20      associated with actions that had been carried forth  
21      during that time period.

22           Q.       In the 2017 rate proceeding, Mr. Kerin  
23      testified that, quote, nothing the Company has done  
24      historically is causing the Company to incur an

1 unjustified cost today to comply with post-2015 CCR  
2 regulations.

3 Do you agree with that statement?

4 MR. MARZO: Chair Mitchell, once again,  
5 if we're going to cite testimony, I'd like to have  
6 the testimony provided to the witness.

7 MS. CRALLE JONES: That would be in the  
8 Kerin direct testimony, page 42. I do not have it.  
9 I did not pre -- but let's --

10 Q. Do you -- is it your opinion that the Company  
11 has done anything historically that is causing it to  
12 incur unjustified costs today to comply with post-2015  
13 CCR regulations?

14 A. My testimony is that the Company was  
15 following regulatory standards and was following what  
16 was industry standards prior to 2015. And then with  
17 the passage of CAMA and CCR, where we had clarity as to  
18 what needed to be done and move forward, that we have  
19 implemented plans, and procedures, and processes to  
20 ensure that we are meeting those new regulations that  
21 came through at that time period.

22 Q. So just to ask again, you followed industry  
23 practices.

24 Are you saying the Company has done nothing

1       historically that caused it to incur unjustified costs  
2       today?

3           A.       I would say that, over the years, of  
4       course -- and you can see this with EPA's process as  
5       they started -- many, many years ago started to look at  
6       coal ash, to where they landed in the 2015 CCR rule.  
7       And we actually have a woman that's coming up as part  
8       of the rebuttal, Ms. Williams, who was with EPA in the  
9       1980s when a lot of the -- she was over the waste  
10      organization, based upon my memory, and EPA, as to what  
11      was done at that time and how things progressed over  
12      time.

13                So you really -- I would go back to decisions  
14      were made at the time the decisions were made based  
15      upon the information that was known at that time. So  
16      hindsight is always 20/20. You can always go back and  
17      look. Based upon the knowledge that you know today,  
18      there has been -- a lot of information has come out  
19      over the last 10, 15 years as our knowledge related to  
20      coal ash management and the handling of this material  
21      has evolved over the years.

22                So we evolved with it as things became  
23      clearer, because we got clear understanding from our  
24      regulators what needed to happen. So you cannot look

1 at things and say, well, what could have the Company  
2 done many, many years ago. We did what we did based  
3 upon the information that we knew at that time and the  
4 clarity that we had from our state regulators and  
5 federal regulators and what was known in the industry  
6 at that time.

7 So as things have evolved over the years, our  
8 policies and practices have changed, and that is why  
9 today we are doing what needs to be done to meet the  
10 requirements under the current CAMA and CCR rule. And  
11 if they change and modify, of course, we will have to  
12 modify and move things appropriately to meet those new  
13 regulations.

14 MS. CRALLE JONES: Chair Mitchell, I  
15 have a few more questions. I didn't know if I  
16 should start a new section or if this was an  
17 appropriate time for a break.

18 CHAIR MITCHELL: All right. Let's go  
19 ahead and take our lunch break. Let's go off the  
20 record. We will come back on at 1:30.

21 (The hearing was adjourned at 12:28 p.m.  
22 and set to reconvene at 1:30 p.m. on  
23 Tuesday, September 8, 2020.)  
24

## CERTIFICATE OF REPORTER

STATE OF NORTH CAROLINA )

COUNTY OF WAKE )

I, Joann Bunze, RPR, the officer before whom the foregoing hearing was taken, do hereby certify that the witnesses whose testimony appear in the foregoing hearing were duly affirmed; that the testimony of said witnesses were taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this hearing was taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.

This the 9th day of September, 2020.



JOANN BUNZE, RPR

Notary Public #200707300112

