

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 Tonia 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

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THE PUBLIC INTEREST:

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

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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. Bednarci k, 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. Bednarci k'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 Di rect Cross Exhi bi t
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 confi denti al .

8 MS. TOWNSEND: Thank you.

9 (AGO Bednarci k Di rect Cross Exhi bi t
10 Number 1 was marked for i denti fi cati on.)

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 Di rect Cross Exhi bi t
6 Number 2.

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

9 MS. TOWNSEND: Thank you.

10 (AGO Bednarci k Di rect Cross Exhi bi t
11 Number 2 was marked for i denti fi ca ti on.)

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. Bednarci k, 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. Bednarci k 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. Bednarci k 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. Bednarci k 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. Bednarick indicate the
14 questions for which Mr. Wells is better suited to
15 testify. Ms. Bednarick, 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 Q. 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 Bednarcik 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. Absolutely.

13 A. (Witness 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 Belews 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 Bednarcik 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 Belews 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 Junis 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 Bednarci k 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 Belews 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 semiannually 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 Bel ews Creek wi th 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 speci fically, 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 Di rect Cross Exhi bit 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 Bednarci k 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. Bednarci k, 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



JOANN BUNZE, RPR

Notary Public #200707300112