PLACE: Dobbs Building, Raleigh, North Carolina

DATE: Wednesday, September 25, 2019

TIME: 9:30 a.m. - 11:33 a.m.

DOCKET NO.: E-22, Sub 562 and E-22, Sub 566

BEFORE: Chair Charlotte A. Mitchell, Presiding
Commissioner ToNola D. Brown-Bland
Commissioner Lyons Gray
Commissioner Daniel G. Clodfelter

IN THE MATTER OF:

Application of Virginia Electric and Power Company
d/b/a Dominion Energy North Carolina,
for Adjustment of Rates and Charges Applicable to
Electric Service in North Carolina

and

Petition of Virginia Electric and Power Company,
d/b/a Dominion Energy North Carolina,
for an Accounting Order to Defer Certain Capital and
Operating Costs Associated with Greensville County
Combined Cycle Addition

VOLUME: 7

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TABLE OF CONTENTS

EXAMINATIONS

EXHIBITS

P R O C E E D I N G S

CHAIR MITCHELL: Good morning. Let's go back on the record, please.

Mr. Drooz, you may continue.

PAUL M. MCLEOD,

having previously been duly sworn, was examined and continued testifying as follows:

CONTINUED CROSS EXAMINATION BY MR. DROOZ:

Q. Mr. McLeod, just to cover the change in numbers between the direct and rebuttal testimony for clarity in the record, originally, I believe you had $390.4 million for CCR expenditures from July 2016 through June 2019 systemwide.

Does that sound correct?

A. Yes, subject to check.

Q. Yeah. I think that's page 31 of your direct testimony.

A. Okay.

Q. And of that, I believe you testified $19.9 million as the North Carolina retail allocation plus another $2.8 million for financing during the deferral period; is that correct?

A. Right.

Q. And you've agreed on the financing, that

should be compounded annually rather than monthly?

A. Yes. That was the recommendation of Public Staff, and we accepted that in our rebuttal testimony.

Q. And as I look at your rebuttal, particularly page 3, note 1, I believe you adjusted the CCR expenditure numbers to $376.7 million systemwide; is that correct?

A. Yes, that's correct. And that's consistent with what was presented in our supplemental update in August where we updated to include actuals through the update period.

Q. And the North Carolina retail allocation is $19.2 million plus financing costs, bringing that up to $21.9 million.

Does that sound correct?

A. Yes. And I think -- I think, just because of the timing when the rebuttal was filed versus the settlement, that that number in the rebuttal hasn't been updated to reflect that compounding -- or the monthly compounding.

Q. Okay. That was a fairly small adjustment?

A. Right. If you want to see what the numbers are, we essentially accepted the total that was calculated by Public Staff. So that would be contained

in witness -- Public Staff Witness Maness' testimony.

Q. Okay. Thank you. That will help us get our proposed -- prospective proposed orders accurate.

MR. DROOZ: So, at this point, I would like to hand out what we would ask to be marked for identification as the Public Staff Cross Examination of Paul McLeod Exhibit Number 1.

CHAIR MITCHELL: The exhibit shall be so marked.

(Public Staff Cross Examination of Paul McLeod Exhibit Number 1 was marked for identification.)

Q. Do you recognize this as the Public Staff's -- one of the Public Staff's data requests served on the Company, and this is the Company's response to Question Number 2 of Set 95?

A. Yes, I do.

Q. Okay. And the Public Staff had asked for a listing of all CCR items, the cost items, including the nature and purpose of the expenditure, the month and year expenditure, the dollar amount of the expenditure.

Is that what was in the request?

A. Right.

Q. Okay. And the Company's response,

essentially, says the majority of CCR expenditures from January 2015 through the present were for services and labor and would be charged to O&M expense in the absence of GAAP/FERC ARO accounting requirements; is that correct?

A. Yeah. That's what the response says. And I would note too that it does say, at the beginning of the response, that, you know, the Public Staff asks us to assume that ARO accounting guidance doesn't exist. Of course, our accountants and research departments focus their efforts on, you know, guidance that does exist. But I think, for purposes of responding to this request, that's what we stated with regard to that O&M.

Q. Right. And while the FERC/GAAP accounting does, in fact, exist and is a requirement for the Company, you eliminate the effects that through pro forma adjustments for North Carolina ratemaking purposes; is that correct?

A. Right. And the costs that you were speaking to this morning have all been deferred and explicitly excluded from our rates -- our current rates.

Q. And that's an order from the North Carolina Commission?

A. Yes.

MR. DROOZ: All right. At this point, I would like to hand out what I would ask to be marked as Public Staff Cross Examination Exhibit of Paul McLeod Exhibit Number 2.

Q. Mr. McLeod, this exhibit is a follow-up data request from the Public Staff following up on the Exhibit Number 1 that we had just talked about; is that correct?

A. Yes.

Q. Yeah. And the Public Staff was seeking a little more detail on what was meant by the word "majority"?

A. Right.

Q. Okay. And as I look at the Company's response, it indicates that, of the $390.4 million estimated CCR expenditures during the deferral period, there were $101.4 million related to operating coal facilities. That would be Chesterfield, Clover, and Mount Storm; is that correct?

A. Right.

Q. And the remainder -- or the roughly $209 million remainder was related to non-operational coal units; is that correct?

A. Right.

Q. Okay. And then looking at the sentence that begins at the very bottom of that first page, it says, "Of the total spend, $390.4 million, this represents less than 2 percent."

When you say "this," you are talking about the amount of the costs that were capitalizable; is that correct?

A. Yeah, that's what it says.

Q. And it goes on to say, "Thus, the vast majority of expenditures would not be capitalizable under the hypothetical scenario that GAAP/FERC ARO requirements do not exist."

A. Yeah. I think, under this hypothetical situation that the staff was asking us to respond to, that's right.

Q. Okay. And under that hypothetical situation, given the numbers, it would be roughly 98 percent of the cost in the deferral period would have been booked as O&M, but for the GAAP/FERC accounting requirements?

A. Yeah. That's right. And I think it's important to note that, again, these costs, for North Carolina purposes, we were ordered to defer them. So, you know, saying what he would do for financial reporting is one thing, but, you know, what we actually

did was defer these costs in the interim, recognizing that they are not in our current rates which, you know, then creates that working capital allowance.

Q. And the costs that you deferred under authority from this Commission, if they hadn't been deferred, would they have been written off to expense during the time they were incurred, or written off as a loss?

A. You are saying, absent the Commission's order on the 2016 case allowing us to defer the cost --

Q. Yes.

A. -- would they have been written off?

Q. Yes.

A. I assume so. But, again, we had specific directives out of the 2016 case to defer these costs that are explicitly not included in our rates.

Q. Right. And that directive to defer that works to the benefit of the Company, because by deferring those expenses, you can then apply for recovery in a subsequent rate case.

That's the purpose of the deferral to a regulatory asset, isn't it?

A. I think it provides benefits to both the Company and the customers. And let me find what the

Commission said in its 2016 order.

(Witness peruses document.)

Let's see. I'm looking at page 61. As a result, the required solution for CCR remediation service, the public policy of encouraging and promoting harmony between utilities, their uses, and the environment. And then the Commission went on to say that the deferral -- the Company will have the opportunity to seek cost recovery for this unexpected extraordinary cost expended in response to the CCR final rule, which has required DNCP to store CCRs in a manner different from that in which the CCRs were being stored prior to 2015.

So it's a benefit to the Company, but -- but also, by doing so, I think you are avoiding having extraordinary costs just hitting your cost of service just in one period, which, you know, by smoothing them out, you know, reduces volatility in the rates, which, you know, I think that's a benefit also for customers as well.

Q. When you talk about having extraordinary costs hit in one period, are you indicating that, to the extent they were test-year costs, then you would apply for recovery on the theory that they were

expected ongoing costs?

A. Right. If we simply just had that large amount in our test year and made no adjustment for them, all else equal, that would increase our cost of service -- our test year cost of service. And if no adjustment is made, then our revenue requirement would be higher.

Q. It's also possible that, if you had gone that route, there could have been an adjustment to not include that test year cost in rates because it wasn't representative of ongoing future costs, necessarily?

A. I guess that's a possibility, but that's not what the Commission found in the 2016 case.

Q. Okay. Thank you.

MR. DROOZ: At this point, I would like to pass out what we will ask to be marked for identification as Public Staff Cross Examination of Paul McLeod Exhibit Number 3.

Q. And I would like to focus your attention on Question Number 2 in this data response.

A. Okay.

Q. And in Question 2, the Public Staff was asking whether the CCR cost must be -- what the Company's legal basis was for including those in rate

base, that is, in asking for return on the unamortized balance; that was essentially the question, wasn't it?

A. Right.

Q. Okay. And the response -- and appreciating that you are not an attorney, but the response provided under your signature is that the Company contends the inclusion of reasonably and prudently incurred unamortized CCR costs should be included in rate base per the North Carolina orders in the DEC and DEP rate cases.

A. Right.

Q. So in terms of your cost recovery in this case, are you relying on the analysis that the Commission set out in the majority opinions in those Duke Progress and Duke Carolina orders?

A. If you are asking for a legal interpretation, I'm not a legal expert, but, you know, I did, obviously in preparing for this case, review the Commission's decisions in those case -- those cases which found that it was appropriate to include that unamortized balance in rate base.

Q. And what I understood from you indicating yesterday seemed more confined to an accounting perspective, which was that simply the Company has

spent these funds, they were investor-supplied capital, that you have a financing cost until they are recovered, and therefore, it would be reasonable for you to earn a return until that balance is fully amortized.

A. Yeah. That's right.

Q. Okay. Are you aware that there were several other theories in the DEC and DEP orders?

A. Right.

Q. Are you relying on those other theories as well?

A. Again, I'm not a legal expert. I can point you to some quotes from those orders, if you would like to know what my thought process is on it.

Q. Only if you are relying on those quotes for your position in this case. If not, we don't need to go into it.

MS. GRIGG: Yeah. I think that would be more appropriate in our legal briefing. I think he's answered this question from his accounting perspective.

MR. DROOZ: That is satisfactory. Thank you.

Q. And again, to the extent you know, in the

Duke Carolina's order, one of the theories was that ash basin closure costs are a capitalized asset under the GAAP/FERC ARO accounting, and therefore, they should be included in rate base as property for North Carolina ratemaking purposes.

Do you know if that's a theory the Company is relying on in this case?

A. You mean the ash basins, themselves?

Q. The closure costs for those basins, the CCR expenditures. And if you are not sure, that's okay.

A. Yeah. I will just say I'm not sure.

Q. Okay. So turning to page 7 of your rebuttal testimony, you state down around lines 16 to 18 that utilities in North Carolina authorize recovered costs that are prudently and reasonably incurred for purposes of providing utility service.

Is that always the case or are there exceptions?

A. I think, barring a finding of imprudence, if costs are reasonably and prudently incurred, I'm not aware of a reason to exclude them from recovery.

Q. And when you say "costs," does that include the financing or carrying costs, a return on those prudently incurred costs?

A. Yes.

Q. Okay. Are you aware that, in the past, in some situations, this Commission has denied a return on the unamortized balance of prudent and reasonable cost?

A. I think, in this case, when I was responding to the Public Staff's testimony, there were cases where there were plant abandonments, I think back in the '80s, where the Commission found that those plants had never generated any power and, therefore, were not used and useful, which was the basis for the Public Staff's contention with regard to equitable sharing.

Q. Are you at all familiar with a case decided by North Carolina Supreme Court in 1994 involving VEPCO where the company had made some capacity payments to PJM at an avoided cost rate ordered by the Virginia Commission, and this Commission said that it was prudent and reasonable to comply with the order in Virginia, but North Carolina doesn't agree with that avoided cost rate and, therefore, we are gonna disallow a portion of that for North Carolina ratemaking purposes? Have you --

A. I'm not familiar with that case.

Q. Okay. Okay. Again, I recognize you're not an attorney. Are you aware that, under North Carolina

ratemaking law, the term "used and useful," that requirement, applies only to property and not to operating expenses?

A. I think our view, if you are speaking to the deferral that we have in this case, the Commission found that that deferral balance in the Duke cases was, in fact, used and useful. You know -- and again, I'm not an attorney, but I think that, if you have operating expenses just built into your cost of service and you are -- it's assumed that you are just recovering them through current rates, then essentially it's a flow-through, kind of like fuel, where there would be no return on those. But with regard to the CCR costs at issue here, you know, they are not included in our rates. They are -- you know, we were ordered to defer them for review in a future case. Which that's what we are here today to discuss. And as a result, you know, we have a significant unamortized balance which represents investor funds for unexpected and extraordinary expenses. And, in my view, that -- you know, that is what the Commission found to be used and useful in this case.

Q. And you indicate the Company was ordered to do that deferral.

That was an order the Company requested; wasn't it, if you know?

A. You mean in the 2016 case.

Q. Yeah. Actually, both Sub 420 and Sub 522.

A. I know, in the 2016 case, it was subject to the stipulation, but it also appeared in the Commission order, and there was some discussion with regard to why it was appropriate to defer those costs and exclude them from current rates.

Q. Was that deferral in the Company's application and direct testimony?

A. For future costs?

Q. The deferral request, yes, if you know.

A. I don't recall if costs beyond the update period would have been addressed in our update case. I think, when we filed our direct case in 2016, we would have been addressing cost through the update period in that case. Now we are addressing cost after the update period. I don't recall if we would have addressed those --

Q. Okay. That's good. Thank you.

A. -- in the direct case.

Q. Turning to page 9 of your rebuttal, you describe the Public Staff's equitable sharing

recommendation as both standard lists and subjective.

I take it you're -- you think it's inappropriate, in part, because there is not a quantitative basis for explaining how to get to that 60/40 sharing; is that correct?

A. Yeah. I think there was discussion on that yesterday at this hearing.

Q. Okay.

A. There was no specific finding of imprudency.

Q. Right. And you are aware, aren't you, that, in the past, where a Commission orders for equitable sharing for nuclear cancellation costs?

A. Can you repeat that?

Q. Are you aware that, in North Carolina, there are past Commission orders for equitable sharing of nuclear abandonment or cancellation costs?

A. Yes. And I think I address that in my rebuttal testimony. As I stated before, those specific assets were found to not be used and useful.

Q. Yes.

A. Right. Which that was kind of the basis for the equitable sharing in those cases.

Q. I understand that, but I'm interested in the standard list and subjective language.

Are you aware of any standard or objective basis or quantification for how the equitable sharing amortization period was determined in those nuclear cancellation cost cases?

A. My understanding is that the Commission found that those assets were not used and useful and arrived at a similar determination to amortize them without a return.

Q. And the Commission simply stated that was a fair and reasonable result in those cases, didn't it?

A. I'll accept that, yes.

Q. Okay. They did not describe how they came out with, say, 10 years instead of 8 or 12, did they?

A. I would have to review the orders.

Q. Okay. The same would be true for the amortization with no return of environmental cleanup costs for the manufactured gas plants, wouldn't it? The Commission set an amortization period that resulted in equitable sharing and did not state a standard; it was a qualitative judgment, wasn't it?

A. I would -- again, I would have to review those orders.

Q. What about the amortization period recommended by parties for unprotected EDIT? That's

basically a qualitative judgment rather than some quantitative outcome, isn't it?

A. Are you talking about our recommendation in this case?

Q. Yes. And the Public Staff's recommendation. And in other cases.

A. I think the Company's recommendation for unprotected EDIT was tied to the remaining lives of the underlying assets, which those -- the specific EDIT was related to. So, in that regard, I don't think it was just a qualitative judgment.

Q. What about for other companies? Did the Commission accept that theory for amortization period?

A. I'm not aware of what the Commission has done for other companies.

Q. How about deferred storm expenses? Is there an objective mathematical basis for that amortization period, or is it a qualitative judgment from the Commission?

A. Can you tell me what case you are referring to?

Q. The Duke cases.

A. Which one?

Q. The last rate case, you know, where they had

hurricane expenses that were amortized.

A. What was the -- I'm not familiar with what the Commission order was.

Q. Okay. If you are not familiar, we will move on.

When you describe the coal ash expenditures during the deferral period as used and useful, do you know if the Company is asserting that those expenditures are legally entitled to a return?

A. I think, again, if you are asking for a legal opinion on that, I'm not -- I'm not an attorney. I think, in my perspective as a regulatory accountant, when I'm preparing revenue requirement schedules and rate base schedules, you know, I'm looking at how the Commission has handled costs in previous cases and what is -- what represents appropriate rate base, whether it be plant service or working capital. And, you know, in my view, those working capital -- the deferred CCR balance is a source of -- or is investor-supplied capital and, therefore, appropriate to include in rate base in addition to rate base.

Q. Okay. On page 13 of your rebuttal, toward the bottom of that page, you're discussing the 1988 Carolina Power and Light case involving the cost

recovery for the Shearon Harris Nuclear Plant.

A. Right.

Q. And you indicate that the Commission allowed full recovery of the prudently incurred used and useful portion of the Harris plant; is that right?

A. Yes.

Q. Okay. That would have been Harris Unit 1, right?

A. Right.

Q. Because Units 2, 3, and 4 were canceled; is that correct?

A. That's my understanding.

Q. Okay. And Unit 1 has actually been used and useful on generating electricity successfully for more than 31 years since that case; is that your understanding?

A. I'll accept that.

Q. Okay. Now, those Unit 1 costs were allowed in rate base in 1988 as utility plant as long-term physical assets and not as O&M expenses, weren't they?

A. I will accept that.

Q. I mean, it's steel in the ground, right?

A. Okay.

Q. Okay. Let's talk a little bit about working

capital, which we could turn to pages 18 and 19 of your testimony, we would suggest somewhat there, working capital includes both materials and supplies and inventory and also includes cash working capital?

A. Right.

Q. Okay. You're not suggesting that the CRR expenditures of Dominion are materials, and supplies, and inventory, are you?

A. No. And, you know, I relied upon, for that determination, again, how these costs have been treated in previous cases. There is a separate section in the working capital portion of rate base for additions and deductions to rate base, and that is based on an analysis of the Company's balance sheet -- you know, non-plant-related balances, but nevertheless, you do an analysis of the Company's balance sheet, and to the extent there is sources of investor funds or, you know, sources that are provided by the customer, those are incorporated into the working capital section of rate base in addition to materials, and supplies, and cash working capital.

Q. Okay. So then -- and that's exactly where I'm going with this.

This is a traditional cash working capital;

it's a separate category working capital as you understand it?

A. Yeah, I agree it is working capital, yes.

Q. Okay. But not cash working capital, which flows from the lead-lag study?

A. Right.

Q. Okay.

A. Just let me just clarify. A part of the lead-lag study -- so the Company -- I believe it's my Schedule 4, in Exhibit PMM-1, has a cash working capital calculation, which is based on just current operations. Operating expenses in the current period and imputing a lead or lag. Based on either operating revenues or the expenses themselves, there would be a timing difference between, you know, when you are theoretically recovering those costs from customers and when you are actually paying for those expenses.

But again, separately -- and this is standard practice. We have been doing this for several cases. We have a balance sheet analysis portion of working capital where we identify more long-term items, which this CCR asset at issue in this case was identified in that process and is included as a component of working capital through that analysis. We refer to that as the

balance sheet analysis.

Q. Okay. Going back to cash working capital, the purpose of that, is it fair to say, is to fund the ongoing day-to-day operations of the utility?

A. Yeah. For those operating expenses that are just currently flowing through cost of service and -- right. To the extent there is a deferral, again, those wouldn't -- those wouldn't be flowing through operating expense. They would be deferred.

Q. Right. So -- and this is for those of us who are not accountants -- just looking at the lead-lag that is the basis for cash working capital, if I understand correctly, Company may have to pay an expense, say on day one of a month, and that is funded from investor money. And then say on day 31 in the month, customer bills come in and you have got revenue to reimburse for that. Meanwhile, you have had -- from day 1 to day 31, you have got 30 days when the investor capital had the carrying costs before the revenues from the customers came in.

A. Right.

Q. Is that essentially how the lead-lag -- and then what you do is you net all the leads and lags and you come up with an average dollar amount that recurs

every month as what's needed to fund those ongoing operations, and that becomes your cash working capital?

A. Yeah. I think you're accurately describing that --

Q. Okay.

A. -- you know, discrete component of working capital. And again, there are other components.

Q. So -- and I understand that the CCR expenditures, the regulatory asset, you have included as another component of working capital; is that right?

A. Correct.

Q. Okay. But the past coal expenditures, such as the $377 million from 2016 and 2019, those are not -- those specific expenditures are not funds held for the payment of future expenses, are they?

A. If you are speaking directly about cash working capital, that one discrete component of overall working capital --

Q. Yes.

A. -- that's correct. I did do some research and -- you know, preparing for this hearing -- and found Robert L. Hahne has a book, "Accounting For Public Utilities," which provides guidance for regulatory accounting, ratemaking, how costs are

treated, and he has a quote in here, "For ratemaking purposes, working capital is a measure of investor funding of daily operating expenditures," which I think that's what you are speaking to, "and," he goes on, "and a variety of non-plant investments that are necessary to sustain ongoing operations of the utility."

So I think, you know, if you're taking a narrow view of just cash working capital, you know, this deferral balance wouldn't necessarily meet that definition. But I think, if you look at how the Commission develops working capital just in practice over the years, it's a broader view, and these deferral balances, at least in my experience, there are several cases where you'll have O&M related to prior periods that are deferred and the unamortized balances included as a component of rate base in working capital.

Q. So -- and I understand that. Here's where I'm going with this.

The Company cites a 1984 VEPCO case from the North Carolina Supreme Court as saying that working capital is proper used and useful; is that correct?

A. (Witness peruses document.)

Yes, that's right.

Q. Okay. And in that court opinion -- just to kind of end the suspense here -- they describe working capital, and that description includes materials and supplies, and it includes cash working capital, but it does not include any other components of working capital, does it?

A. (Witness peruses document.)

If you read -- and I think I am looking at the quote you are looking at. It says, "The utilities own funds reasonably invested in such materials and supplies and its cash funds reasonably so held for payment of operating expenses as they become payable." That seems to me it would -- you know, I think that's exactly what we're dealing with here, where we have spent -- you know, the Company has spent nearly $380 million since its last rate case on CCR remediation, which, as we discussed, you are characterizing as operating expenses, 98 percent of it are operating expenses. But this definition, to me, in reading it, it would, in my view, include this deferral balance that we are speaking of.

Q. Okay. I understand your interpretation. It does say cash funds reasonably so held for payment of operating expenses as they become payable.

So that would be funds held for future expenses as they become payable, right? Not the past expenditures.

A. I think my perspective in this case with regard to the CCR balances, as those costs become payable; i.e., recovered through rates in the future, that's when they would no longer -- they would no longer need to be a balance in rate base for those. But in the interim time period when we've spent the cash, it hasn't been included in rates -- you know, per the Commission's order in the 2016 case, there is a regulatory lag there between when, you know, those cash funds were spent and when they will become -- you know, when we will recover them from customers. In the meantime, that represents working capital.

Q. Right. You have a financing cost here, but that's not the cash working capital for future operating expenses, is it?

A. Again, I think --

Q. It's a div- --

A. If you are talking about cash working capital, that is more of a narrow discrete view of working capital. I think I -- you know, this Commission has found other items are working capital,

including regulatory asset balances.

Q. Okay. Let's turn to page 22 of your rebuttal.

Now, would you agree that, in Mr. Maness' testimony, he identifies the magnitude of coal ash costs as one of the factors the Public Staff used to recommend an amortization period?

A. Yes.

Q. Basically, bigger magnitude suggests a longer amortization in the Public Staff's opinion?

A. I don't recall if he was saying -- Mr. Maness was saying that we need to have a long amortization period just because of the size of these costs. Maybe he was supporting the sharing concept, which, you know, he was recommending excluding the balance from rate base and amortizing over a long period of time. I think it was in support of just the whole concept.

Q. Okay. So, as I read your testimony, you're at least implying that there is some inconsistency in his testimony in the 2016 case where he recommended initially, before stipulation, a 10-year amortization, whereas in the present case he recommends 18 years; is that a fair characterization?

A. Yes.

Q. Okay. The magnitude of the coal ash costs sought for recovery in the present case are somewhere between four and five times as much as those the Company sought in the 2016 case; is that correct?

A. Yeah, that's right.

Q. Okay. On the topic of used and useful, did the 2016 rate case order for Dominion identify which CCR expenditures were property used and useful and which were O&M expenses as they would have been booked without FERC ARO accounting?

A. No. I don't recall there being a need to distinguish between the two. In my view, I don't know if you really need to do that. I think it's just -- again, we are following the cash. We are not -- you know, all ARO accounting is adjusted out for purposes of ratemaking, and we are simply looking at what are the cash flows, regardless of hypothetically they would have been capital O&M.

Q. Right. That wasn't even an issue that the witnesses addressed in 2016, was it?

A. Right.

Q. Okay. Now, that issue did come up when the Attorney General filed its post-hearing brief in that case, if you are aware?

A. Can you remind me of it?

Q. The question of whether the coal ash expenditures qualify as used and useful?

A. Right. And I think that's where the Commission drew its decision from. That was the litigation around that --

Q. Right.

A. -- cost where the Commission found that the deferral balance was used and useful.

Q. So the Attorney General's position in that case was that they were not used and useful simply because some of the plants were no longer in service, if you recall?

A. (Witness peruses document.)

I believe, in that case, the Attorney General was pointing to -- it says Carolina water service case, which related to abandoned plant where, again, I think similar to the nuclear plants, the Commission made a finding about these costs not being used and useful, and the Commission distinguished between those costs and the CCR costs at issue in this case and ultimately decided that the Company should earn a return.

Q. Let's turn to page 17 in your rebuttal -- and we're almost through here -- starting at line 4. We

are almost through with my part. I can't speak for everyone else. Maybe that's wishful thinking.

Starting on line 4 you say, "As a threshold matter, the coal plants associated with these costs" -- you mean -- by "these costs," you are talking about the CCR expenditures?

A. Right.

Q. "And the related coal ash disposal facilities have been used and useful in providing low-cost, reliable power to North Carolina customers for decades." So a couple of questions on that. You are speaking in past tense here that they have been used and useful.

Are all those facilities -- all those coal-fired facilities still providing electric power, or have some of them retired?

A. I think we established earlier that several of those plants have been retired, but if you look at the Commission -- here's the quote from the order here. I think they found that, you know, those ash basins, you know, while maybe they aren't accepting, you know, ash from current operations, they are still being used and, you know, my -- I guess my view is that that's part of the lifecycle of those facilities, which one

could say that they are and continue to be used and useful.

Q. So when we talk about, for North Carolina retail ratemaking purposes, is there a difference between utility plant that's used and useful and the operating expenses associated with that plant?

A. Yeah. I think, yeah, that's true.

Q. One is entitled to a return and the other is not entitled to a return, if you know?

A. I think I have said in my testimony, you know, it's my view that the Company is entitled to a return. Maybe -- I don't know if I'm saying that from a legal perspective or not, but, you know, these costs at question in this case were prudently incurred, and this deferral balance is similar to the costs addressed by the Commission in recent cases. You know, it was unexpected and extraordinary, was explicitly not included in our current rates. You know, they are incremental new costs. We are not dealing with plant investment from years ago. I mean, these are, you know, new expenditures since the Company's last rate case.

Q. These are new expenditures to dispose of coal ash waste a second time, not resulting in any new

electric service to customers, aren't they?

A. Right. But I don't think that's -- if you are thinking about used and useful, that wasn't what the -- you know, the fact that it's -- that those plants are no longer accepting new ash or those plants aren't generating new electricity, that wasn't really what the Commission was looking at in the 2016 case.

Q. Okay. And speaking of the 2016 case, Sub 532 for Dominion, did the Commission's orders specify that its decision was based on the facts and circumstances in that case?

A. Yes.

Q. And one of those facts and circumstances included a negotiated settlement between Public Staff and the Company?

A. It did, but as you mentioned, the Attorney General's office took issue with, you know, whether or not those assets should be included in rate base. So the Commission did render a decision on that and found that the balance was used and useful.

Q. Right. And the order also stated that the decision in that case was not precedent for ratemaking treatment of coal ash cost in the future, didn't it?

A. Yes. But I would say, I mean, if -- you

know, if you are looking ahead now to this case, we have very similar costs in question, and you are trying to make a decision with regard to whether or not it should be in rate base, it's certainly informative to look at the Commission's previous decisions.

Q. Well, you say similar cost.

In the prior case, North Carolina retail is about $4.4 million, and here it's 20-or-so million?

A. Right. But we are still dealing with CCR remediation.

Q. Right. And in the prior case, no party put on evidence of culpability for environmental contamination; in this case, at least the Public Staff has put on that evidence, hasn't it?

A. Yes. But again, it's the Company's position that these costs are reasonably and prudently incurred, and the Public Staff made no specific finding of imprudence.

MR. DROOZ: Okay. Thank you. Those are all my questions.

CHAIR MITCHELL: Redirect?

MS. GRIGG: Just very briefly.

REDIRECT EXAMINATION BY MS. GRIGG:

Q. Mr. McLeod, Mr. Drooz asked you about your

rebuttal testimony on page 9 where you said the Public Staff's position was standardless on its equitable sharing concept, as they have called it.

A. Right.

Q. Do you remember that?

A. Yes.

Q. Is it your understanding of the Public Staff's position that, even if the Company does everything perfectly, there is not one exceedance, there is not one aspect of culpability in their opinion, that they would still recommend some level of disallowance?

A. That's what I heard yesterday, yes.

Q. And I know you're not Mr. Hevert or Mr. Davis, but, in your opinion, how do you think investors would perceive a regulatory environment if the Public -- if the Commission adopts the Public Staff's position that some adjustment is appropriate just because the costs are large?

A. I think that the -- you know, as you said, I'm not Mr. Hevert, but the community would certainly not view that favorably. I think that would mean that there is a larger amount of uncertainty in future cases if the Commission -- or, you know, were to make a

finding -- disallowance without any specific finding of imprudence.

Q. And do you think it's likely that the Company is going to be back in here in a few years, or some number of years, requesting recovery of additional CCR closure costs?

A. Yes, that's right.

Q. And Mr. Drooz asked you some questions about the length of the amortization period and what's an appropriate length of time to amortize these costs?

A. Right.

Q. And yesterday Commissioner Clodfelter asked Mr. Maness about a general regulatory policy that yesterday's customers shouldn't pay for today's costs?

A. Right.

Q. Do you remember that, kind of this intergenerational cost?

Doesn't that principle, in your opinion, also apply to long amortization periods?

A. Yeah. I think, if you're trying to make a determination with regard to how long to amortize the deferred cost, that certainly should be a consideration, and I think would support, you know, all else equal, a decision for a shorter amortization

period.

Q. Right. So tomorrow's -- a 19-year amortization period, tomorrow's customers are paying today's costs?

A. Right.

Q. And didn't you also note in your testimony that, since the Company will be likely coming back for additional -- to seek additional recovery of those CCR costs, that you will, what I crassly labeled pancake, so you will have additional costs on top of the ones we are seeking recovery on today?

A. Correct. That's another aspect of why we believe a shorter amortization period is appropriate.

MS. GRIGG: I don't have anything further.

CHAIR MITCHELL: Questions from Commissioners? Commissioner Clodfelter?

EXAMINATION BY COMMISSIONER CLODFELTER:

Q. Mr. McLeod, I just have a few questions. The -- my first question is really a predicate for the main question.

In your supplemental testimony, as I read it, as of December 31, 2017, on a North Carolina jurisdictional basis, the total amount of protected and

unprotected excess deferred income tax was approximately $94.1 million; is that correct?

A. You said on -- what page was that?

Q. I took it off of page 47. Just -- I want to ask you a question about the number, but I want to make sure I got the right number.

A. Yeah. Let me get there real quick.

Q. Okay.

A. (Witness peruses document.)

Are you looking at Figure 2?

Q. Yes.

A. Yes, okay.

Q. So we have got the right number, and that's protected and unprotected, and that represents amounts collected from customers that are, in some manner and at some point, will be repaid to customers because the Company doesn't need them to pay income taxes?

A. Yes.

Q. In layman's terms, that's correct?

A. Yeah.

Q. Now, that number, $94.1 million, does not connect to any segregated account containing $94.1 million of cash untouched? Doesn't relate to that, does it? There is no such thing?

A. No. It's not a cash --

Q. There is no such thing as a $94.1 million account that the Company has set aside and segregated? That doesn't exist, does it?

A. Well, we would have regulatory assets -- regulatory asset liability accounts, but you are correct in that there wouldn't be a specific amount of cash.

Q. Those are not funded cash accounts set aside somewhere, correct?

A. Correct.

Q. Again, I will ask you to sort of -- if you want to check, that's fine, but I took this from the Company's trial balance sheet as of December 31, 2018, and according to the trial balance sheet, as I read it, the total aggregate Company-wide -- not North Carolina jurisdictional but Company-wide basis, because that's what's on the balance sheet -- the total balance of all regulatory liability accounts was $3,813,023,099; does that sound right to you?

A. Was that in one of our E-1 items?

Q. Yes, it was. Yes. It's from the trial balance sheet as of December 31, 2019.

Subject to check, would you take it that's

correct?

A. Yes.

Q. That's just the predicate, because my question really is, that number doesn't represent an amount of cash sitting aside somewhere in an account untouched, does it? It's not a funded cash account, is it, that number?

A. All the regulatory assets and --

Q. No. These are regulatory liabilities.

A. All of the regulatory liabilities?

Q. Funds provided by customers that will be returned to customers at some point.

A. I hesitate, because it may -- you know, without doing a lot of research, it may include funding or amounts associated with the nuclear decommissioning trust, which in those cases -- or in that case there would be a cash balance associated with that.

Q. Fair point. So let's leave those to one side. Aside from those funds -- and whatever that number would be, we subtract that from the 3 billion 813 million and so forth, but the remainder doesn't represent a funded cash account, does it?

A. I guess, in general, I would agree with that.

Q. Okay. Did you participate in the 2016 rate

case -- general rate case for the Company?

A. Yes. I was a witness.

Q. Am I correct -- because I did not participate, so that's why I have to ask you the question.

The Company presented an updated depreciation asked in the 2016 rate case, correct?

A. No. In that case -- so we presented a new depreciation study in this case.

Q. In this case?

A. Based on, I believe, calendar year 27 -- 2017 activity. Prior to that would have been the 2012 depreciation.

Q. 2012 depreciation study?

A. Right.

Q. But your study in this case -- that presented in this case, and the study in the 2012 case are the two most recent depreciation studies the Company has presented, correct?

A. Virginia Power; yes, that's right.

Q. For North Carolina purposes?

A. For Virginia Power and North Carolina jurisdiction, correct.

Q. That's fine. That's all I have. Thank you.

A. Okay.

CHAIR MITCHELL:

Commissioner Brown-Bland.

EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q. We could hold this out for Witness Williams if you don't know this answer, but just in case you do, were you familiar with the two cases West vs. VEPCO and Morrow vs. VEPCO litigation in Virginia circuit court regarding property damages?

A. Sorry, I'm not familiar with those cases.

Q. Okay. We will wait and hold off for Witness Williams.

CHAIR MITCHELL: Questions on Commission's questions?

(No response.)

CHAIR MITCHELL: Okay. Thank you. You may step down. And I will entertain motions.

MS. GRIGG: I don't think we have any exhibits to Mr. McLeod's testimony, but ask that it be entered into the record.

CHAIR MITCHELL: Motion is allowed.

(Whereupon, the prefiled rebuttal testimony of Paul M. McLeod was previously copied into the record as if

given orally from the stand and included in Volume 6.)

MR. DROOZ: And Public Staff moves that our three cross examination exhibits be admitted into evidence.

CHAIR MITCHELL: Motion is allowed.

(Public Staff Cross Examination of Paul McLeod Exhibit Numbers 1 through 3 were admitted into evidence.)

COMMISSIONER CLODFELTER: Madam Chair, in connection with this witness' testimony, I would like to ask that the Commission take judicial notice of the 2012 depreciation study presented in the Company's rate case contemporaneously at that time and the supporting testimony of the sponsoring witness of that study.

CHAIR MITCHELL: Commission shall take judicial notice as requested.

Please call your next witness.

MR. SNUKALS: Dominion Energy North Carolina now calls Mr. Jason E. Williams to the stand.

CHAIR MITCHELL: Mr. Williams, I will just remind you you are still under oath.

JASON E. WILLIAMS,

having previously been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION BY MR. SNUKALS:

Q. Would you please state your name and business address for the record?

A. Yes. Jason E. Williams. Business address, 5000 Dominion Boulevard, Glen Allen, Virginia 23060.

Q. By whom are you employed and in what capacity?

A. I am employed by Dominion Energy Services Incorporation, with context of this testimony as the director of environmental services.

Q. Did you cause to be prefiled in this docket on September 12, 2019, 47 pages of rebuttal testimony in question-and-answer form and 8 exhibits consisting of 463 pages?

A. Yes, I did.

Q. Do you have any changes or corrections to that rebuttal testimony or exhibits?

A. No, I do not.

Q. If I were to ask you the same questions that appear in your rebuttal testimony today, would your answers be the same?

A. Yes, they would.

MR. SNUKALS: Chair Mitchell, at this time, I would move that the prefiled rebuttal testimony of Mr. Williams be copied into the record as if given orally from the stand including the exhibits thereto.

CHAIR MITCHELL: The rebuttal testimony of Mr. Williams shall be admitted, and we will identify those exhibits as premarked, and we will hold off on admitting those until he is -- until cross examination is complete.

(Company Rebuttal Exhibits JEW-1 through JEW-8 were identified as premarked.)

(Whereupon, the prefiled rebuttal testimony of Jason E. Williams was copied into the record as if given orally from the stand.)

REBUTTAL TESTIMONY
OF
JASON E. WILLIAMS
ON BEHALF OF
DOMINION ENERGY NORTH CAROLINA
BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-22, SUB 562

I. INTRODUCTION

Q. Please state your name, position of employment, and business address.

A. My name is Jason E. Williams, and my business address is 5000 Dominion Blvd, Glen Allen, Virginia 23060. My title, as of the filing of my direct testimony in this case, was Director – Environmental Services for Dominion Energy Services, Inc., a subsidiary of Dominion Energy, Inc. ("Dominion Energy"), which provides services to Virginia Electric and Power Company, doing business in North Carolina as Dominion Energy North Carolina (the "Company" or "DENC"). On July 1, 2019, I transitioned to a new role within the Company as Director, Learning Development & Communications.

Q. On whose behalf are you submitting this rebuttal testimony?

A. I am submitting rebuttal testimony on behalf of DENC.

Q. Are you the same Jason Williams who filed direct testimony in this case?

A. Yes.

Q. Please discuss the purpose of your rebuttal testimony.

A. The purpose of my rebuttal testimony is to respond to several issues discussed in the direct testimony of Public Staff Witnesses Jay B. Lucas and Michael C.

Maness that are related to the Company's request to recover its compliance costs for managing coal combustion residuals ("CCR").

Q. Do you have any general comments you would like to make about the Public Staff's testimony?

A. Yes. The Public Staff argues that the Company should not be allowed to recover all of its CCR costs because it is "culpable." The Public Staff contends that the Company should have taken some undefined actions at some unspecified times in the past to change industry standards for managing and storing CCR. The Public Staff should understand that this argument is untenable. As Mr. Lucas has previously stated:

> *We can't go back in time and say, oh, they should have put in a clay liner in 1978 or done dry ash stacking in the 1980s. I mean, that's impossible to go back and put all these "what ifs" together and say exactly here's what they should have done. And here's what would have been the cost, and that cost would have been in the rates today for customers.*
>
> ...
>
> *[T]hat's going back to the past. Somebody could have gone back and said what you should have done back at a certain time. And that's — you could be talking about the prudence, and I can't go back and — I can't go back and tell you exactly what would have happened what you should have done at a certain time. I'm not sure what good it would have done...*[1]

It is unclear how the Public Staff can argue that the Company is culpable, while at the same time acknowledging that it cannot identify a specific action that the Company could have taken.

[1] Tr. Vol. 19, pp. 34-5; 37 (Docket No. E-2, Sub 1142).

Q. Please summarize your rebuttal testimony.

A. The Public Staff effectively recommends a disallowance of 40% (forty percent) of the Company's requested costs to comply with recent federal and state CCR regulatory requirements that did not exist when the Company began construction and operation of its CCR storage facilities, including surface impoundments and landfills. To implement this disallowance, the Public Staff recommends that the Commission adopt an equitable sharing approach whereby the Company's CCR unamortized amount of the deferred costs are excluded from rate base, which means that the Company will not earn a return on the unamortized balance. The Public Staff recommends that the costs be amortized for a period of 19 years. This would result in a 60-40 split where the Company would not recover 40% of its costs.

The Public Staff cites two purported justifications for its equitable sharing approach. First, Public Staff Witness Lucas alleges that DENC is culpable for environmental degradation that now requires expensive remediation, the costs of which should be shared between the Company and its customers. Second, Public Staff Witness Maness argues that even in the absence of evidence of environmental culpability, the Public Staff would recommend equitable sharing due to the enormity of the costs. My testimony will primarily focus on addressing Witness Lucas' testimony regarding the Company's CCR management and environmental compliance. Company Witness Paul M. McLeod will address Witness Maness' testimony.

First, my rebuttal testimony will address the appropriate scope of issues to be determined by this Commission with respect to CCR management costs, which is whether the Company's management decisions and associated costs from July 1, 2016 through June 30, 2019 to comply with the federal CCR Rule and state regulations were reasonable and prudent. The Public Staff has not alleged that DENC has imprudently or unreasonably incurred a single cost in this case related to its CCR impoundments or landfills.

Second, I will respond to the Public Staff's criticisms of DENC's historical CCR management practices. I will discuss the inappropriateness of the Public Staff assuming the role of an after-the-fact environmental regulator. I will also address the Public Staff's criticism of my experience and expertise. My testimony will then provide the historical and regulatory context to properly frame the evolving body of scientific knowledge regarding CCR disposal methods. I will describe how Virginia's and West Virginia's environmental regulators have taken a responsible and measured approach to regulating CCR, and how DENC has complied with the directives and guidance from its regulators. I will show that DENC has historically managed its CCR responsibly in compliance with industry standards and with state and federal regulations.

Third, I will respond to the Public Staff's accusation that the Company has not been responsive and forthcoming during the discovery process. Relying on that allegation, the Public Staff then baselessly infers that filling in the information gaps would likely show problems with DENC's management

practices that would further justify a disallowance. The Public Staff's characterization of the discovery process is wrong and misleading.

Lastly, I will respond to the Public Staff's extrinsic testimony intended to cast the Company in a negative light, including testimony about litigation against the Company, purported incidences of noncompliance, the Battlefield Golf Club, and the Chisman Creek Site.

II. RESPONSE TO THE PUBLIC STAFF'S TESTIMONY

A. CCR Costs from July 1, 2016 through June 30, 2019

Q. What CCR costs has DENC requested recovery of in this general rate case?

A. In my direct testimony, I outlined the scope of the Company's request related to CCR compliance costs. My testimony described in detail the decisions made by the Company from July 1, 2016 through June 30, 2019 to comply with new federal and state CCR regulatory requirements at seven facilities in Virginia – Bremo, Chesapeake, Chesterfield, Clover, Possum Point, Virginia City Hybrid Energy Center, and Yorktown - and one facility in West Virginia – Mt. Storm. Company Witness Mark Mitchell explained the costs associated with those decisions. The proper issue before this Commission is whether the identifiable CCR costs that the Company incurred from July 1, 2016 through June 30, 2019 were the result of reasonable and prudent decisions made at the time the costs were incurred.

Q. Has the Public Staff recommended any specific disallowances for those CCR costs?

A. No. The Public Staff does not recommend a single, specific disallowance of the Company's costs related to its CCR impoundments or landfills. In other words, the Public Staff does not determine that DENC's costs to comply with the CCR Rule or state regulatory requirements were unreasonable or imprudent. *See* Lucas T. at 6:4-5 ("I note that the equitable sharing recommendation is not based on the imprudence standard…"). As discussed by Company Witness McLeod, DENC, therefore, should be allowed to recover its compliance costs.

Q. Has the Public Staff recommended a general disallowance of the Company's CCR costs?

A. Yes. As discussed by Company Witness McLeod, the Public Staff's "equitable sharing" recommendation is effectively a disallowance of 40% of DENC's requested costs. However, the 40% disallowance is arbitrary and not tied to any specific cost that the Company has incurred. Nor is the proposed disallowance tied to any specific finding of unreasonableness or imprudence on behalf of the Company.

Q. What is the effect of the Public Staff's selective use of the prudency standard as it relates to its general disallowance recommendation?

A. The Public Staff ignores the costs and contemporaneous management decisions related to this case and focuses instead on historical decisions made decades before these costs were incurred. The Public Staff replaces the

prudency standard with a new standard upon which to judge the Company's decisions – culpability. Taking a hindsight approach, the Public Staff scrutinizes DENC's decades-old CCR management decisions to manufacture a disallowance of present-day costs. However, the Public Staff does not identify any specific economic impact of the Company's decision, as would be required under the prudence standard. The Public Staff acknowledges that identifying any specific economic impact of the Company's decisions or omissions from decades in the past on current costs would be impossible. The mere fact that the Public Staff admits that such a task would be impossible demonstrates the unfairness of its methodology. Instead, the Public Staff adopts an even more attenuated and speculative standard - recommending a general disallowance of present-day costs based on unspecified past decisions or omissions.

B. CCR Management History

Q. What is your understanding of the role of the Public Staff and the Commission with respect to the Company's historical environmental practices?

A. Based on prior statements made by Witness Lucas, my understanding is that the Public Staff and the Commission are not environmental regulators. Therefore, Mr. Lucas' criticism of the Company's historical CCR practices is improper and conflicts with the Public Staff's longstanding positions regarding environmental compliance. DENC can find no instance prior to 2016 where the Public Staff had raised any concerns regarding groundwater or

surface water issues related to CCR or CCR management strategies at any of DENC's facilities. Neither can the Public Staff. Company Rebuttal Exhibit JEW-1 (PS Response to DR 2-15).

To explain why the Public Staff had never evaluated environmental compliance related to CCR management in the past, Mr. Lucas previously testified that the role of the "Public Staff is to protect the using and consuming public while reviewing the managerial, financial and technical aspects of the company. *We're not environmental regulators*." Company Rebuttal Exhibit JEW-2 (Lucas Dep. T. at 86 (E-2, Sub 1142)) (emphasis added). Mr. Lucas went on to explain that the focus of the Commission and the Public Staff is the regulation of cost and rates, not environmental regulation. *Id.* In North Carolina, environmental regulation is the responsibility of the North Carolina Department of Environmental Quality ("NC DEQ"). *Id.* Likewise, in Virginia and West Virginia, environmental regulation is the responsibility of the Virginia Department of Environmental Quality ("VA DEQ") and West Virginia Department of Environmental Protection ("WV DEP"), respectively. The division of responsibilities – between economic regulation and environmental regulation – ensures consistency and efficiency.

The Public Staff did not raise any concerns about DENC's CCR management practices and environmental compliance at the time when the decisions related to CCR management were made in the 1970's, the 1980s, the 1990s, or the 2000s. From the Company's perspective, it would have been reasonable to assume that the Public Staff did not have any concerns or did not otherwise

believe that the Company's CCR management practices were imprudent or unreasonable. Fundamental principles of fairness and due process dictate that the Company should be able to rely on the Public Staff's prior position and not be subject to second-guessing decades later.

Even if the Public Staff did have concerns, which were never voiced to the Company, the Public Staff are not environmental regulators. According to Mr. Lucas, it was not the Public Staff's role to raise those concerns to the Company or the Commission. It has also been Mr. Lucas' position that "[i]t would not be mismanagement" for a utility to follow the directives of its environmental regulators. *Id.* at 83. If the Public Staff's role did not involve evaluating the Company's historical CCR environmental practices when the management decisions were made, the Public Staff cannot argue that its role now involves second-guessing the decisions of the Company and its environmental regulators decades later. But that is exactly what the Public Staff has done here. The Public Staff has supplanted VA DEQ's and WV DEP's judgment with that of Mr. Lucas. Witness Lucas' testimony in this case far exceeds his and the Public Staff's expertise and is unreliable.

Q. Has the Public Staff recently acknowledged that it does not have environmental expertise?

A. Yes. On May 24, 2019, the Public Staff submitted the testimony of Evan D. Lawrence, Utilities Engineer, Electric Division in Docket No. EMP-103, Sub 0. Mr. Lawrence, like Mr. Lucas, is also an engineer within the Electric Division of Public Staff. In that docket, Albemarle Beach Solar, LLC applied

for a certificate of public convenience to construct an 80 megawatt solar facility in Washington County, North Carolina. Certain intervenors raised issues regarding the environmental impacts of the project. The Public Staff deliberately did not weigh in on the environmental issues surrounding the project:

> "[T]he Public Staff does not have particular expertise in the area of impacts of electric generation on the environment. Those issues are best left to the purview of environmental regulators who do have this expertise, and who are responsible for issuing specific environmental permits for electric generating facilities. To that end, as stated below, the Public Staff recommends that the Commission require compliance with all permitting requirements[.]"

Company Rebuttal Exhibit JEW-3 (Lawrence T. at 7 (EMP-103, Sub 0)).

Despite the Public Staff's admitted lack of expertise regarding and jurisdiction over the environmental impacts of electric generation, the entire purpose of Mr. Lucas' testimony is to characterize the environmental impacts of DENC's coal generation facilities. The Public Staff goes even further by attempting to establish, in hindsight, subjective and ill-defined environmental compliance standards that the Company should have been bound to follow. I do not believe that the Public Staff should be critiquing or attempting to supplant the expert decisions of environmental agencies, particularly when those decisions were informed by the context of the distant past.

Q. How do you respond to the Public Staff's criticisms of your background and experience?

A. I believe the criticisms are unfounded. I am a professional geologist with almost twenty (20) years of groundwater remediation and waste management

experience. This experience includes five years that I spent with VA DEQ, where I was the lead staff on reviewing coal ash regulations following the TVA dam failure in 2008. My role was to not only provide expertise in coal ash, but to also provide guidance regarding Virginia's groundwater requirements and their history. While at the Company, I have become proficient in West Virginia's groundwater regulations and their application to DENC's Mt. Storm facility. Since the Public Staff's recommended disallowance is largely based on alleged groundwater issues at DENC's sites in Virginia and West Virginia, I am extremely well-qualified to explain the Company's CCR management decisions with respect to groundwater in those states.

Additionally, I am well-positioned to discuss the history of CCR management at DENC's facilities. In my role as Director of Environmental Services, I was responsible for overseeing environmental compliance at all of DENC's coal-fired plants. That role required that I understand how those plants and CCR storage facilities have been historically operated. As discussed further below, I have reviewed historical regulatory reports as well as the studies cited by Mr. Lucas, and I am well-qualified to understand those materials in their proper context and to draw meaningful and reasoned conclusions from them.

Q. Do you have any other observations regarding the Public Staff's position on the Company's CCR management?

A. Yes. My impression is that the Public Staff is being unfairly punitive to the Company. It appears that only in cases relating to coal ash does the Public

Staff depart from its admitted area of expertise. It is my opinion that the Public Staff's disparate treatment of coal ash issues is arbitrary and does not serve the industry, customers, or the Commission well.

I also believe that allowing or encouraging the Public Staff to take on the role of a hindsight environmental regulator – particularly by revisiting decades-old records and decisions – would promote inefficiency and inconsistency within the utility industry. It would be inefficient because environmental regulators already consider and understand the potential impacts of their decisions, such as when and to whom to issue permits, when and where to require and not require groundwater monitoring, or how potential impacts, if manifested, should be addressed. The Public Staff is attempting to second-guess those efforts but without the requisite level of expertise. It would promote inconsistency because having utilities be subject to the Public Staff's hindsight environmental review would potentially undermine the decisions, judgment, and expertise of environmental regulators.

Q. Does the Public Staff have any criticisms of DENC's past CCR environmental practices?

A. Yes. Mr. Lucas' criticisms can be summarized as follows:

- Based on an "evolving body of scientific knowledge…by the early 1980's, the electric generating industry knew or should have known that the wet storage of CCR in unlined surface impoundments was detrimental to the quality of surrounding groundwater and surface water." Lucas T. at 34-35;

- "[I]ndustry leaders, prior to the recent nationwide trend towards development, strengthening, and enforcement of regulations for storage and disposal of CCR, were at least partly responsible for setting the "industry standard" for waste disposal, which they cite for past decisions regarding coal ash management." *Id.* at 37;
- "DENC and other utilities should have installed comprehensive groundwater monitoring well networks to determine if the risk was materializing at their ash ponds." *Id.*;
- The Company's decision not to construct a dry ash waste disposal site at Possum Point was unreasonable. *Id.* at 47;
- Historical reports related to Chesapeake, Chesterfield, Yorktown, and Chisman Creek show evidence of degradation of the natural groundwater quality as a result of the Company's coal ash disposal practices. *Id.* at 50-56;
- "Unanswered questions remain about what the Company knew or did not know regarding CCR contamination at the time it made key decisions pertaining to coal ash storage...The Company is not able to demonstrate, with the records available, that it fully accounted for and mitigated the risks of CCR contamination in prior decades of CCR disposal and management." *Id.* at 56;
- "The Public Staff believes that the Company has had exceedances at its impoundments over a long period of time." *Id.* at 73; and

- The Company's CCR compliance costs are related to corrective actions that would only be needed where CCR constituents have contaminated the water to a degree in excess of environmental standards. *Id.* at 75.

Based on the above criticisms, Mr. Lucas determines that "DENC has a great deal of culpability for compliance costs related to CCR impoundment closures…" and that equitable sharing of those costs is reasonable. *Id.* at 79.

Q. Do you agree with the Public Staff's criticisms of DENC's historical CCR management practices and the characterization of DENC's compliance history?

A. No. As I will discuss further below, Mr. Lucas' criticisms are unfounded.

Q. How do you respond to the Public Staff's contention "that the electric generating industry knew or should have known that the wet storage of CCR in unlined surface impoundments was detrimental to the quality of surrounding groundwater and surface water"?

A. I take issue with this contention for several reasons. First, Mr. Lucas cites historical studies without providing any context for the purpose of those studies. None of the handful of articles cited condemn or suggest the elimination of the use of unlined impoundments. As Mr. Lucas notes, these articles are merely part the "evolving body of scientific knowledge" regarding CCR management and disposal. Lucas T. at 34. The Public Staff has also omitted findings and other reports that would provide additional context.

Second, unlined surface impoundments are not by their very existence "detrimental" to groundwater and nearby surface water. As the Environmental Protection Agency's ("EPA") reports in the 1980s, 1990s, and 2000s show, many site specific and regional factors must be considered to evaluate potential impacts to water quality from surface impoundments. And, even if impacts are discovered, that does not mean that any material harm to the environment has occurred or is likely to occur.

Q. What context do you believe is missing from the Public Staff's testimony, and how should that impact the Commission's assessment of the Public Staff's recommendations?

A. The Public Staff's testimony is devoid of any qualitative analysis of the evolving knowledge of potential impacts from CCR management practices. Understanding the extent and nature of potential impacts is crucial to determining whether the Company should have taken any different actions with respect to managing its CCR and when those actions should have occurred. One must also consider how different actions may have impacted DENC's ability to reliably generate electricity to meet demand and other economic impacts.

Surface impoundments were constructed as an environmental solution, not an environmental problem. Concerns about air emissions from coal-fired plants resulted in the adoption of emission control technologies to collect CCR that normally would have been emitted into the air. That CCR was then redirected via water to surface impoundments, which served a water treatment function.

The EPA's approach to regulating CCR has evolved significantly over time, ultimately culminating in the CCR Rule. Below, I have provided a summary of this regulatory history, much of which was omitted from the Public Staff's testimony.

Bevill Amendment

The EPA has never regulated CCR as a hazardous waste. In 1976, Congress passed the Resource Conservation and Recovery Act ("RCRA") to create a federal program for regulating hazardous waste. The program established a "cradle to grave" approach managing hazardous waste. The program covers the generation, transport, treatment, storage, and disposal of hazardous waste. Four years later in 1980, Congress passed amendments to RCRA to exclude the following wastes from regulation as hazardous:

> fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels; solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore; and cement kiln dust.

42 U.S.C. §6921(b)(3)(A)(i)-(iii) ("Bevill Amendment"). Thus, CCR was considered by the EPA to be non-hazardous solid waste, subject to less stringent standards.

1988 EPA "Report to Congress, Wastes from the Combustion of Coal by Electric Utility Power Plants" ("1988 EPA Report")

The 1988 EPA Report was the EPA's first major evaluation of the scientific body of knowledge regarding CCR disposal methods and potential environmental impacts. The 1988 EPA Report was prepared in response to a

directive contained in the Bevill Amendment to "conduct a detailed and comprehensive study and submit a report on the adverse effects on human health and the environment, if any, of the disposal and utilization of fly ash waste, bottom ash waste, slag waste, flue gas emission control waste, and other byproduct materials generated primarily from the combustion of coal or other fossil fuels." 1988 EPA Report at ES-1.

Notably, the purpose of the historical studies cited in the Public Staff's testimony, along with numerous uncited scientific studies, was to aid the EPA in reaching the findings and conclusions in the 1988 EPA Report. Those studies were not intended to be interpreted in isolation, as the Public Staff has done. It would, likewise, have been imprudent for the Company or its environmental regulators to make decisions about CCR management based solely on those isolated studies. The findings and conclusions the EPA reached after evaluating the full body of scientific knowledge available at the time were far more valuable.

The 1988 EPA Report did not conclude that groundwater contamination was widespread or that, when it occurred, it posed a risk to human health or the environment. To the contrary, EPA concluded that "when groundwater contamination does occur, the magnitude of the exceedance is generally low." 1988 EPA Report, at 7-8. EPA further concluded:

> "Although coal combustion waste leachate has the potential to migrate from the disposal area, the actual potential for exposure of human and ecological populations is likely to be limited. Because utility plants need a source of water to operate, most of the disposal sites are located quite close to surface water. Fifty eight percent of the 100 sample sites

> were within 500 meters of surface water. It is not common for drinking water wells to be located between the disposal site and the nearest downgradient surface water body. The effect of this proximity to surface water is that only 34 percent of the sampled sites had drinking water intakes within five kilometers. Furthermore, the flow of the surface water will tend to dilute the concentrations of trace metals to levels that satisfy drinking water standards."

Id. at 5-96 – 5-97.

EPA also did not conclude that industry management practices at the time were improper or that overhauling CCR management practices was warranted. "EPAs tentative conclusion is that current waste management practices appear to be adequate for protection of human health and the environment" *Id.* at 7-11. The EPA acknowledged that there may be potential risks associated with CCR management practices, but that those potential risks did not justify the potential costs of requiring CCR to be managed differently, including retrofitting existing impoundments with liners.

1993 EPA Regulatory Determination

Building upon the findings, conclusions, and recommendations in the 1988 EPA Report, the EPA published "Part 1 Regulatory Determination" in 1993 as required by the Bevill Amendment. 58 Fed. Reg. 42466 (Aug. 9, 1993) ("1993 EPA Determination"). As it did in the 1988 EPA Report, the EPA determined that CCR was not hazardous waste under RCRA and further regulation was not warranted. As part of its determination, EPA addressed the specific question of whether the industry should eliminate impoundments altogether:

> One commenter felt that there is the potential for groundwater degradation from these coal combustion residues as a result of their leaching potential, although regulation of these wastes under Subtitle C is not appropriate. The inherent high permeability of materials landfilled without the benefit of stabilization or liners could allow a large volume of percolation to occur, resulting in potential groundwater contamination. The commenter urged the Agency to eliminate questionable coal combustion waste impoundments and suggested that regulations similar to 40 CFR part 258 (requirements for municipal solid waste landfills) would be appropriate for FFC waste management units.
>
> While the Agency believes that design and operating requirements similar to part 258 may be appropriate for some FFC waste management units, the risks posed by FFC waste management are site-specific. Although groundwater contamination has occurred at certain coal combustion waste sites, *contamination has been due to a limited number of constituents, which are likely to attenuate and dilute to safe levels before reaching an exposure point.* This is in contrast to municipal solid waste landfills that are subject to 40 CFR part 258. The leachate at these sites often contains elevated levels of a wide range of toxic pollutants, and numerous damages have been observed. Therefore, the Agency believes that the level of protection provided by the part 258 criteria may not need to be universally applied to all FFC waste management units. *It is therefore appropriate to allow the States to retain the flexibility to tailor requirements to site-specific or regional factors rather than establish broad Federal minimum requirements.*

Id. at *42481 (emphasis added).

Due to the generally limited environmental impacts from CCR disposal, EPA determined that imposing significant operational controls on utilities for CCR management, including requiring liners or standardized monitoring requirements, were unnecessary:

> A Subtitle C system would require coal combustion units to obtain a Subtitle C permit (which would unnecessarily duplicate existing State requirements) and would establish a series of waste unit design and operating requirements for these wastes, which would generally be in excess of requirements to protect human health and the environment. For example, *if such wastes were placed in the Subtitle C universe, all ash disposal units would be required to meet specific liner and monitoring requirements.* Since FFC sites vary widely in terms of topographical, geological, climatological, and hydrological

> characteristics (e.g., depth to groundwater, annual rainfall, distance to drinking water sources, soil type) and the wastes' potential to leach into the groundwater and travel to exposure points is linked to such factors, *it is more appropriate for individual States to have the flexibility necessary to tailor specific controls to the site or region specific risks posed by these wastes.*

Id. at *42477.

EPA concluded "that the potential for damage from these wastes is most often determined by site- or region-specific factors and that the current State approach to regulation is thus appropriate." *Id.*

1999 Report to Congress

Six years later, the EPA again concluded that CCR should not be regulated as hazardous waste:

> The Agency has tentatively concluded that the comanaged wastes generated at coal-fired utilities, including petroleum coke combustion wastes as well as wastes from other fuels co-fired with coal, generally present a low inherent toxicity, are seldom characteristically hazardous, and generally do not present a risk to human health and the environment. Current management practices and trends and existing state and federal authorities appear adequate for protection of human health and the environment. State programs increasingly require more sophisticated environmental controls, and tend to focus on utility waste management due to the high waste volumes. For example, the frequency of environmental inspections at utilities is among the highest of all the major industry sectors in the United States.

Report to Congress on Wastes from the Combustion of Fossil Fuels, EPA, at 3-5 (Mar. 1999) ("1999 EPA Report").

EPA also determined that outright elimination of large impoundments was not warranted:

> [*T]he Agency was unable to identify any feasible risk mitigation practices for these very large impoundments* other than to continue to

> rely on the Clean Water Act new source standards to move the industry toward dry handling of the coal combustion wastes. (Dry handling methods do not involve surface impoundments and therefore do not present the ecological risks identified for impoundments.) Outright elimination of the large impoundments would impose extremely high costs on the operators. The benefits to be derived from elimination of impoundments are uncertain due to unavailability of information on actual receptor exposure rates and impacts as described above.

Id. at 3-6. As of 1999, the EPA could not identify any particular actions the Company or industry should have taken to mitigate the risks from existing large surface impoundments.

2000 Regulatory Determination

Following its 1999 Report to Congress, EPA issued another regulatory determination in 2000 affirming its decision not to regulate CCR under Subtitle C of RCRA. Company Rebuttal Exhibit JEW-4 (65 Fed. Reg. 32214 (May 22, 2000)) ("2000 EPA Determination"). EPA decided to retain the exemption for CCR disposed in surface impoundments and landfills, relying instead on state regulators because of the substantial improvement in state programs to advance CCR management practices and mitigate risk. For example, EPA found that:

> […] for landfills, more than 40 states have the authority to require permits, siting restrictions, liners, leachate collection, groundwater monitoring, closure controls, and cover/dust controls. Forty-three states can require liners and 46 can require groundwater monitoring compared to 11 and 28 states, respectively, in the 1980's. For surface impoundments, more than 30 states have authority to require permits, siting restrictions, liners, groundwater monitoring, and closure control; 33 can require leachate collection (there is no earlier comparison data for surface impoundments). Forty-five states can require liners and 44 can require groundwater monitoring for impoundments.

Id., at *32228. As discussed in more depth below, both Virginia and West Virginia were on the leading edge of implementing and improving environmental controls for CCR landfills and impoundments. However, not all states had implemented the same risk mitigation controls as Virginia and West Virginia and that is why EPA, for the first time, concluded that further regulation under Subtitle D for CCR disposed in landfills and surface impoundments would be needed to improve management practices in certain states.

The CCR Rule

An attempt to increase regulation of CCR under RCRA did not come until June 2010, when EPA proposed the draft CCR Rule, which coincided with the Tennessee Valley Authority coal ash dam failure. The proposed CCR Rule included three possible regulatory options, two of which would have regulated CCR under RCRA Subtitle D and one of which would have regulated CCR under RCRA Subtitle C. The regulatory implications of those options ranged from allowing the continued operation of unlined impoundments with additional monitoring to complete excavation of all impoundments. Many state environmental regulators, including VA DEQ, questioned whether further federal regulation of CCR was necessary and argued that regulation should be left to the states. This sentiment was echoed by the Public Staff in an August 2009 letter to the EPA:

> As we understand it, the EPA is also evaluating a requirement for the early retirement of active surface impoundments used by electric utilities to manage CCBs. We understand that, to date, every State environmental agency that has weighed in on the issue (approximately

> twenty State agencies) has opposed regulating CCBs as hazardous waste. The agencies have instead taken the position that the best management option for regulating CCBs is as non-hazardous waste under RCRA Subtitle D in order to both preserve and expand the beneficial use of CCBs and because the States have the regulatory infrastructure in place to ensure the safe management of these materials. We believe that this is certainly the case in North Carolina.[2]

Therefore, as of 2010 and until the final CCR Rule was signed in late 2014, the regulatory landscape for CCR was still very much in a state of flux.

Q. How should DENC's historical CCR management practices be evaluated in the context of the regulatory history discussed above?

A. I believe that DENC responded reasonably and appropriately to evolutions in industry practices and regulatory approaches for CCR management. From the passage of the Clean Water Act ("CWA") in 1972 and the RCRA in 1976 until enactment of the CCR Rule in 2015, EPA has consistently deferred to state environmental agencies to regulate CCR. That is because, until the CCR Rule, a one-size-fits-all federal regulatory approach was not deemed necessary to address region-specific conditions and risks. This deference is also consistent with EPA's ability to delegate primary permitting and oversight authority of its programs to states.[3]

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[2] https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/oira_2050/2050_102809-5.pdf.
[3] EPA authorized Virginia and West Virginia's NPDES permitting program in 1975 and 1982, respectively: *https://www.epa.gov/npdes/npdes-state-program-information*.

Q. Please describe the regulatory scheme in Virginia with respect to groundwater that was applicable to DENC's CCR impoundments and landfills.

A. Virginia first adopted groundwater regulations in 1977. From 1977 until 1998, VA DEQ's regional offices evaluated groundwater risks at CCR facilities through requirements placed in the Company's VPDES, Virginia Pollution Abatement ("VPA") permits, and solid waste permits. Additionally, local governments could also require groundwater monitoring through conditional use permits issued for certain CCR storage facilities. As of 1988, Virginia had authority to require groundwater monitoring for surface impoundments.

In 1998, VA DEQ developed guidelines to promote consistent standards amongst its six regions for "1) when to require ground water monitoring, 2) monitoring well installation, 3) parameters to consider for monitoring, 4) proper sampling and analytical methods, 5) review of submitted data, 6) risk assessment, and 7) remediation." Company Rebuttal Exhibit JEW-5 (VA DEQ Guidance Memorandum No. 98-2010, at 1-2 (Sept. 30, 1998)) ("1998 VA DEQ Guidance").

The 1998 VA DEQ Guidance, consistent with the prior practice of the divisions, also delegated discretion to the permit writer – a member of VA DEQ staff with specialized expertise – to determine whether a groundwater monitoring plan ("GWMP") would be required and to determine the scope of the GWMP. Where a GWMP was deemed necessary, VA DEQ adopted a

phased approach. The first phase would typically involve a small number of wells (minimum of one upgradient and two downgradient). If potential groundwater impacts were detected during the first phase, a second phase with additional monitoring wells may have been required. *Id.* at 7-8.

Based on the groundwater monitoring data received (i.e. constituents, detected levels, extent of plume, proximity of plume to receptors), VA DEQ would then determine whether a risk assessment was necessary. If VA DEQ identified a potential risk, then it could require remedial action.

VA DEQ had authority to require a broad range of remedial actions to address potential groundwater impacts from existing and new impoundments, including requiring closure, excavation, or lining of impoundments. *Id.* at 27-28. However, VA DEQ also determined that any required remedial actions should be commensurate with the risks posed by the potential impacts. *Id.* For example, "[d]epending on the pollutants and receptors, leaving the ground water alone at that point may be all that is necessary (decompose naturally)." *Id.*

Q. How did Virginia's regulatory programs impact DENC's operations in Virginia?

A. By 1988, all of DENC's stations, with the exception of Bremo, were required to monitor groundwater. By 2000, all of DENC's stations in Virginia were monitoring groundwater.

VA DEQ's monitoring requirements applied to DENC's CCR impoundments and landfills. By 2000, DENC was monitoring groundwater at all of its active CCR impoundments under VPDES permits, with the exception of the West Pond at Bremo. The West Pond has always contained a small volume of CCR, which was periodically dredged and placed in the North Pond, which was undergoing groundwater monitoring. The inactive impoundments at Possum Point (Ponds ABC) and Bremo (East Ash Pond) were not subject to groundwater monitoring. Those impoundments had been closed in the 1960s and 1980s, respectively.

DENC began monitoring groundwater at all of its landfills at or near the time they were constructed pursuant to its solid waste permits.

Q. Please describe the regulatory scheme in West Virginia with respect to groundwater that was applicable to DENC's CCR operations at Mt. Storm.

A. WV DEP and its predecessor agency, the Division of Energy, were responsible for overseeing the State's solid waste program applicable to CCR storage. As of 1987, all CCR disposal sites in West Virginia were required to "meet leachate, waste confinement, and aesthetic standards. There [were] specific requirements concerning ground-water monitoring and final cover." Company Rebuttal Exhibit JEW-6 (1988 EPA Report, Appendix C, at C-6 – C-7).

Q. How did West Virginia's regulatory programs impact DENC's operations in West Virginia?

A. Groundwater monitoring at Mt. Storm began after the issuance of a NPDES permit to construct Phase A of the now Phase A and B landfill. This permit was issued in 1986 and included groundwater monitoring as a component of the construction and long term monitoring during subsequent operation. Groundwater monitoring at Mt. Storm began in 1987. The low volume waste ponds area was also regulated by a WV issued NPDES permit, but did not require groundwater monitoring. Monitoring at these ponds did not begin until the passage of the CCR Rule and with it the first requirement to monitor groundwater surrounding these ponds. As demonstrated in the 40 semiannual groundwater monitoring reports provided to Public Staff for Mt. Storm, an exceedance was not managed as a violation. An exceedance, much like in Virginia, simply required DENC take additional steps as identified in the NPDES permit. Those additional steps are outlined in the same semiannual groundwater reports provided to the Public Staff and included increased frequency of sampling, additional parameters, and assessments to determine if additional actions were required. Based on those assessments and subsequent NPDES permit reissuance, no further corrective actions were required.

Q. How do you respond to the Public Staff's contention that "DENC and other utilities should have installed comprehensive groundwater monitoring well networks to determine if the risk was materializing at their ash ponds"?

A. I disagree with Mr. Lucas' insinuation that the Company did not do enough to evaluate the potential groundwater impacts of CCR impoundments. As Mr. Lucas notes in his testimony, the Company began groundwater monitoring in 1983, which expanded greatly over time. Mr. Lucas does not specify when or to what extent the Company should have taken further action to monitor groundwater.

Mr. Lucas is attempting to establish an arbitrary, hindsight-based standard that is not based on any reasonable principles or criteria. The Company would have no way of knowing whether it was complying with that standard since it is based on the subjective judgment of Mr. Lucas. An applicable and enforceable standard, at a minimum, would need to address the following criteria:

- How would one determine which ponds would be subject to monitoring?
- How many monitoring wells would need to be installed?
- How many background wells would need to be installed?
- Should the installation of wells be tied to the existence of receptors in the vicinity of the CCR facility?
- Where would the wells need to be installed?

- At what depth would the wells be installed?
- What constituents would be monitored?
- When should each well have been installed?
- How often should the wells be tested?
- How long would the Company be required to continue monitoring?
- Who would determine the sufficiency of the monitoring program?
- What is an acceptable cost for the monitoring program?

These criteria are crucial to determining how monitoring should be applied, as the Commission has previously noted:

> Determining the number and placement of monitoring wells, not an inexpensive endeavor, is an inexact science. The prevalent and cost-effective process is to install monitoring wells iteratively to best identify harmful groundwater contamination. Evidence of excessive constituent levels up gradient of impoundments tells nothing about impoundment contamination but is necessary to identify naturally occurring constituents that may or may not exist down gradient. Unlike synthetic contaminants like dry cleaning fluid or nuclear waste where evidence of its presence in groundwater can be tied to a source of pollution, all the potentially harmful elements from coal ash occur naturally in the ambient environment. Underground water flows may dissipate excessive levels of CCR contaminants through natural attenuation to those below standard thresholds. There may be no receptors in the vicinity of the impoundment.

Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, at 264 (June 22, 2018) ("*DEC Order*").

Additionally, Mr. Lucas does not explain why VA DEQ and WV DEP's judgment regarding the necessity for and scope of groundwater monitoring should be ignored. As late as 1998, VA DEQ's position was that extensive

monitoring networks were not an appropriate starting point for assessing potential groundwater impacts at surface impoundments. As of 2015, when the CCR Rule was published, the 1998 VA DEQ Guidance was still in effect. Since DENC's environmental regulators did not believe that installing extensive monitoring networks was necessary or appropriate for all sites, it is reasonable to question whether DENC's economic regulators (the Commission and SCC) would have deemed costs to install and monitor unnecessary wells to be reasonable.

Q. How did DENC and its environmental regulators utilize the groundwater data the Company provided to mitigate risks?

A. In Virginia and West Virginia, DENC collected and submitted groundwater data at the frequency established in its environmental permits. VA DEQ and WV DEP then reviewed and analyzed the data. In the event of an exceedance, the agencies then would evaluate the statistical significance of the exceedance to determine if it could be attributed to DENC's CCR storage areas. If a correlation was suspected, then the agencies, based on their expertise and professional judgment, could require the Company to take a variety of actions. At DENC's facilities, environmental regulators have required anything from an increasing the frequency of sampling, increasing the number of constituents sampled, installing new wells, or preparing site characterization study that would evaluate risks. In all cases, DENC complied with the additional actions required by its environmental regulators to mitigate risks and protect the environment. Notably, for all of DENC's surface

impoundments, environmental regulators reissued NPDES permits and solid waste permits allowing the Company to continue to dispose and store CCR in those impoundments. Had environmental regulators determined that DENC's CCR storage areas posed a threat to human health or the environment, they would not have continued to renew operating permits and more corrective actions would have been required.

Q. What are the implications of the Public Staff not using the prudence standard?

A. Mr. Lucas' testimony does not identify any specific instances of imprudence on behalf of the Company with respect to its historical CCR management practices. Other than not installing "comprehensive groundwater monitoring networks," which the Public Staff did not determine was imprudence, the Public Staff identifies no different action that it believes the Company should have taken with respect to overall management of its CCR facilities. The Public Staff also cannot demonstrate how groundwater monitoring beyond what was required by VA DEQ or WV DEP should or would have altered the Company's decisions. Even if the Public Staff could identify alternative actions the Company should have taken in response to additional monitoring, which it cannot, the Public Staff cannot show how those alternative actions would have impacted the present-day costs that the Company is seeking to recover in this case. If the Public Staff is going to argue that the Company's historical management practices justify a disallowance of present-day costs, it must also demonstrate how those practices have directly and quantitatively

impacted present-day costs.[4] Mr. Lucas' testimony does not provide this necessary analysis.

For the reasons discussed above, the Company's compliance with VA DEQ and WV DEP requirements regarding groundwater monitoring was reasonable and prudent.

Q. How do you respond to the Public Staff's contention that DENC, as an industry leader, was at least partly responsible for establishing the industry standard it cites to justify its past management practices?

A. I agree that DENC is one of many regulated utilities in the country that has generated electricity for its customers by burning coal and that it has disposed of CCR through various means over time consistent within industry standards and practice, including the use of surface impoundments and landfills.[5] Mr. Lucas does not define what the industry standard should have been. More importantly, as he does not argue that DENC's compliance with the industry standard and applicable laws was unreasonable, imprudent, or irresponsible, his contention here is not relevant.

Mr. Lucas seems to be suggesting that DENC should have moved well ahead of accepted science, regulatory requirements, and industry practice and began taking unspecified measures to prevent any and all groundwater quality issues,

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[4] *See* 1988 DEP Rate Order, at 15.

[5] Mr. Lucas' characterization of DENC as a large generator of CCR is misleading. As of 1987, Virginia, where most of DENC's CCR is located, was not even one of the seventeen highest coal-burning states in the country. *See* Company Rebuttal Exhibit JEW-6, at Appendix C. DENC has only one coal-fired plant in West Virginia.

without regard to the cost of those measures, how those measures would have impacted the Company's ability to provide reliable and uninterrupted electric service, whether sufficient and proven technology existed at the time to address the conditions at each site, or whether groundwater quality issues posed any risk to human health or the environment.

C. Alleged Evidence of Environmental Degradation

Q. How do you respond to Mr. Lucas' testimony regarding alleged environmental degradation at Possum Point, Chesapeake, Chesterfield, and Yorktown?

A. Mr. Lucas suggests that environmental reports from Possum Point, Chesapeake, Chesterfield, and Yorktown demonstrate that the Company was or should have been aware of degradation of groundwater quality resulting from its CCR disposal practices and did not adequately mitigate risks. I disagree with this assertion.

The existence of exceedances does not mean that the Company did not mitigate risks. Mr. Lucas is wrongly conflating impacts (exceedances) with harm (risks). Virginia's groundwater regulations and remediation requirements are focused on mitigating harm, not impacts. As the reports and VA DEQ's actions indicate, impacts alone, without any sufficient risk of harm, did not justify further action beyond continued monitoring. None of the reports cited by Mr. Lucas indicated any risk to offsite human health or ecological receptors. Nor do they demonstrate mismanagement by the Company. When VA DEQ did require follow-up measures, DENC took

appropriate action at each site. This is consistent with VA DEQ's longstanding approach to remediation, which is tied to risk analysis. *See* Company Rebuttal Exhibit JEW-5 at 25 ("…the risk assessment ultimately determines whether some measure of remediation needs to be completed.").

The Public Staff also accuses the Company of violating the 1989 Special Order at Possum Point, citing a lack of documentation showing otherwise. Lucas Exhibit 4 proves that the Public Staff is wrong. Lucas Exhibit 4 is not from 1989, as the Public Staff suggests.[6] It is a letter that the Company received on May 14, 1991 from the State Water Control Board ("SWCB") with the subject line "Cancellation of Consent Special Order – Possum Point." The letter further states:

> Based on a review of regional and enforcement files in the above referenced matter, it appears that the requirements of the above referenced consent special order (hereinafter the "Order"), issued on September 12, 1989 have either been substantially fulfilled, or, if not fulfilled, incorporated into the newly reissued VPDES permit for the Possum Point facility.

Lucas Exhibit 4. After receiving the Public Staff's testimony, the Company requested documentation regarding the special order from VA DEQ. The Company received a document confirming that the SWCB cancelled the special order because the Company had met its compliance obligations. Company Rebuttal Exhibit JEW-7 (Cancellation of Special Order). The Public Staff posited Lucas Exhibit 4 as evidence that the Company did not comply with the special order. It actually shows the opposite. The

[6] The special order is an attachment to the letter.

Company's response to the 1989 Special Order was clearly not unreasonable, otherwise the SWCB would not have cancelled the special order.

The reports cited for Chesapeake and Chesterfield indicate that the Company was diligently monitoring groundwater to assess whether mitigation measures were necessary. Where corrective action has been required, the Company has complied with those directives. Regarding the Yorktown report, the Company ultimately determined, and VA DEQ accepted, that the chloroform was attributable to off-site conditions, not CCR. Again, the Public Staff's citation to the Yorktown report as an indication of groundwater exceedances due to CCR is misleading.

Q. How do you respond to Mr. Lucas' discussion of exceedances?

A. Exceedances alone are not evidence of mismanagement, wrongdoing, or environmental harm. The existence of past and present groundwater exceedances reflects historical construction practices and the evolution of groundwater assessment and corrective action under modern laws. The Company has taken every action required by VA DEQ and WV DEP pursuant to the applicable groundwater rules to address groundwater impacts as they have been identified. Further, in studying ash basins and developing the CCR Rule, the EPA was aware that the design of ash basins had resulted in groundwater concerns throughout the industry; however, EPA determined that immediately closing basins, which would require shutting down operating coal plants, would be more harmful to human health and the environment than

taking a measured approach.[7] As discussed above, DENC's regulators focused on whether the exceedances were causing, or had the potential to cause harm to, any on- or off-site receptors to determine whether mitigation measures were necessary. The existence of an exceedance of applicable standards at a particular location is not evidence of actual or potential harm; rather, it is a data point that informs whether and to what extent further study is required to assess potential risk. This is a complex and highly technical task that takes into account many different factors.

Virginia and West Virginia's groundwater regulations are not intended to be punitive or to determine culpability. These regulations should not be misapplied in this case to penalize the Company.

Q. Are the Battlefield Golf Club site and Chisman Creek site relevant to this case?

A. No. The purpose of my direct testimony was to explain why DENC should be allowed to recover its reasonably and prudently incurred costs to comply with the CCR Rule and state environmental regulations pertaining to CCR management *at its facilities*. The Battlefield Golf Club ("Battlefield") is not owned by DENC. At the time the contamination occurred at Chisman Creek, DENC did not own or control the disposal pits. Neither site is subject to the CCR Rule. The Public Staff does not argue that the environmental conditions

[7] *See* 80 Fed. Reg. 21302, 21423 (Apr. 17, 2015) (recognizing that "the risks to the wider community from the disruption of power over the short-term outweigh the risks associated with the increased groundwater contamination from continued use of leaking or improperly sited CCR units").

at Battlefield or Chisman Creek caused the CCR Rule or any costs in this case. Lucas Direct T. at 77.

The Public Staff instead appears to cite Battlefield and Chisman Creek for the purpose of suggesting that the environmental investigations at those sites are somehow connected to DENC's CCR facilities. That conclusion is wrong and is not supported by the evidence.

Notably, VA DEQ objected to such an inference in its comments to the draft CCR Rule regarding Battlefield:

> As EPA's own conclusions do not indicate harm from this site, Virginia DEQ respectfully disagrees with EPA's presentation of this issue in the proposal and requests that the situation of the Battlefield Golf Club not be used to mistakenly assume problems with Virginia's CCR management program when in fact EPA's own data and conclusions do not support that assumption. Virginia DEQ is very proud of the success of its beneficial use program for CCRs and other solid wastes, and has worked diligently to ensure that success while protecting human health and the environment.

Company Rebuttal Exhibit JEW-8 (VA DEQ Comments on EPA Proposed Rule, at 21 (Nov. 18, 2010)).

Like Battlefield, the issues at Chisman Creek are not evidence of problems with DENC's CCR management practices. From 1957 to 1974, the Company hired contractors to lawfully dispose of CCR and petroleum coke byproducts from Yorktown in abandoned sand and gravel pits at a site in York County known as Chisman Creek. These sand and gravel pits at Chisman Creek were not surface impoundments or landfills like the Company operated at its stations. The contractors owned the byproducts, they owned or controlled the

disposal areas, and the contractors were responsible for disposing of the byproducts in compliance with relevant federal and state standards.

Due to groundwater contamination, primarily attributable to constituents associated with petroleum coke (i.e. vanadium), EPA entered the site into the Superfund Program. The contractors were identified as responsible parties. The Superfund Program, however, has a strict liability standard for determining responsible parties that is not dependent on fault, negligence, or mismanagement. Because it generated the byproducts disposed at Chisman Creek, the Company was determined to be a responsible party. When the contractors were unable to address the issues at the site, the Company voluntarily cooperated with EPA, VA DEQ, and the local government throughout the remediation process, even earning the Environmental Achievement Award for its efforts.[8]

Q. Is litigation against the Company relevant to this case?

A. No. Additionally, it is unclear from Mr. Lucas' testimony why he cited the litigation. He does not argue that the existence of those cases are evidence of wrongdoing, prior mismanagement, or harm to the environment.

For example, the Public Staff references a case involving the Sierra Club and cites to findings in court orders that arsenic was reaching surface waters and

[8] Information related to Chisman Creek is publicly available at EPA's website: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302756

A helpful summary document about Chisman Creek is available at: https://semspub.epa.gov/work/HQ/176439.pdf

groundwater. Once again, the Public Staff's testimony is misleading. The Public Staff omitted the trial court's conclusion about the environmental effects of the arsenic:

> As discussed above, *no evidence shows that any injury, much less an irreparable one, has occurred to health or the environment.* In contrast, the hardships of the proposed injunction on Dominion are enormous, given the absence of any evidence of the amount of arsenic going into the water. The proposed injunction will entail years of effort costing hundreds of millions of dollars, for very little return. The public interest will not be served. Dominion receives income through rates charged to its customers; those rates would likely rise to pay for the Sierra Club's proposal. Moreover, the Sierra Club has not even attempted to itemize the collateral environmental effects of moving this much coal ash.

Sierra Club v. Virginia Elec. & Power Co., 247 F. Supp. 3d 753, 765 (E.D. Va. 2017), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), and *aff'd in part, rev'd in part*, 903 F.3d 403 (4th Cir. 2018). Further, as the court recognized, the Company's historical monitoring results for surface water around the Chesapeake site all have been well below applicable standards. The Company performed additional surface water, sediment, and biological monitoring as required by the district court's original order, all of which supported the court's finding of a lack of harm. This data was provided to the Public Staff during discovery.

D. Discovery Issues

Q. The Public Staff accuses the Company of not being forthcoming during discovery and withholding documents. How do you respond?

A. These accusations are false. I, along with my staff and many others within the Company, worked tirelessly and in good faith to locate, collect, and then produce information and documents spanning almost four decades of the

Company's operations. As the Company and the Public Staff were attempting to work cooperatively, likewise, the Company did not object to the numerous overly broad and unduly burdensome requests that the Public Staff made. I estimate that we spent over 250 hours searching for and collecting information, culminating in the production of decades' worth of CCR-related documents to the Public Staff. While now claiming that the Company's discovery responses and production were incomplete, the Public Staff never filed a motion to compel.

Despite the Company's efforts, the Public Staff complains that it has "attempted without great success to obtain from the Company all available sources of historical information." The Company has produced voluminous historical materials that it has available, and the Public Staff has also obtained additional historical records from state regulators. There is no reason why, in the absence of any legal requirement or business reason to do so, the Company should have retained four decades' worth of CCR permitting records. Certainly in the 1980s, the Company could not have foreseen that the Public Staff would be, in the year 2019, scrutinizing the Company's historical CCR management practices.

The Public Staff accuses the Company of withholding information from the Public Staff in response to a discovery request regarding seeps at DENC's CCR basins. *See* Lucas Direct T. at 66. This accusation is misleading. Mr. Lucas' testimony references a 2018 seep mitigation report from Chesterfield to support his accusation. *See* Lucas Exhibit 11. However, the seep

referenced in the mitigation plan has nothing to do with DENC's CCR management practices or its impoundments. The seep originated from the coal pile, not the CCR impoundments. Lucas Exhibit 11 also includes a letter identifying VA DEQ of a potential seep near the Upper Ash Pond at Chesterfield; however, this observed condition was not a channelized flow of water emanating from the berm of the impoundment berm. For the reasons, discussed above, the Company stands by its discovery responses.

Similarly, the Public Staff insinuates that the Company withheld information regarding regulatory findings of non-compliance at Chesterfield. The Public Staff refers to documents that it received from VA DEQ (Lucas Exhibit 10) to prove this point. Once again, the Public Staff's accusations are false. The Public Staff's discovery requests relate to DENC's CCR storage areas (i.e. impoundments and landfills). The warning letters in Lucas Exhibit 10 are not administrative findings of non-compliance for DENC's CCR storage areas. The letters relate to the onsite coal pile and a temporary pipe failure that occurred before CCR entered the impoundment. Therefore, not only is Lucas Exhibit 10 irrelevant, it is also misleading.

Lastly, the Public Staff accuses the Company of withholding information about the Chisman Creek Site ("Chisman Creek"). The Company reasonably interpreted the Public Staff's overbroad requests to relate to the CCR disposal locations at the Company's generating facilities, which are subject to the CCR Rule and state CCR regulations and are the focus of the costs discussed in my direct testimony. As discussed further below, Chisman Creek falls within the

EPA's Superfund Program and is not subject to the CCR Rule or state CCR rules. Furthermore, Chisman Creek is a matter of public record and, from the Company's and EPA's perspective, is an environmental stewardship success story. If the Public Staff wanted information about Chisman Creek, the Company would have been happy to direct the Public Staff to that information.

The Public Staff's criticism of the discovery process simply distracts from the purpose of this proceeding. The Public Staff used a similar tactic in Duke Energy's rate cases. Ironically, though, Mr. Lucas complained that he could not perform a prudence review because Duke Energy produced *too many* documents. Tr. Vol. 19, p. 15 (E-2, Sub 1142).

Q. The Public Staff claims to have inadequate information to evaluate the Company's environmental compliance history. Do you agree?

A. No. Throughout Mr. Lucas' testimony, he suggests that the lack of annual groundwater reports and other documents created prior to 2000 somehow limits the Public Staff's ability to understand DENC's compliance history. Although the Company could not locate annual groundwater reports prior to 2000 (i.e., reports 20 years old and older), DENC did provide the Public Staff with a spreadsheet showing all groundwater monitoring results going back to the beginning of monitoring for each site. As these monitoring results were required by DENC's state environmental permits, each of the almost 300,000 individual results was provided to VA DEQ or WV DEP. While we do not

know precisely how VA DEQ and WV DEP responded to each sample prior to 1999, we do know the following:

- DENC's environmental regulators did not require the Company to retrofit its existing impoundments with liners;
- DENC's environmental regulators did not require the Company to close its existing impoundments;
- DENC's environmental regulators did not require the Company to excavate CCR from its existing impoundments;
- DENC's environmental regulators authorized the Company's continued use of its existing impoundments;
- DENC's environmental regulators authorized the Company to continue disposing of CCR in its existing impoundments; and
- DENC's environmental regulators, where potential groundwater impacts were identified, required further monitoring, risk assessments, or corrective action.

DENC's environmental regulators, with all of the data available to them, did not see a sufficient environmental justification for requiring DENC to change its CCR management practices. And, in the absence of any environmental justification, the Company would not have been able to make an economic justification to its shareholders and customers for overhauling its operations. Further, it is questionable whether environmental regulators would have even allowed the Company to line or excavate its impoundments at the time,

considering the potential environmental and health risks associated with those activities.

The Public Staff's assertion that "missing" groundwater data may show additional evidence of degradation is speculation, is not scientifically supported, and is not consistent with the regulatory record. Moreover, it would be speculation built on speculation to suggest that additional evidence would have triggered any different action by environmental regulators or the Company. Recent groundwater data collected under the CCR Rule actually suggests otherwise.

The CCR Rule data confirms that there is no impact to public health from DENC's CCR facilities. While the results do demonstrate local elevated concentrations, those concentrations are within DENC's property boundaries. Studies of DENC's facilities have consistently shown for each location with elevated groundwater concentrations there are no impacts to private or public water supply wells. Nothing in the results collected over the past two years requires the removal of the CCR under the CCR Rule, nor would it have required removal of CCR under existing state regulations and policy. The decision to remove the ash from impoundments in Virginia, the costs for which are not included in this case, was a policy decision by the General Assembly and not one driven by existing legal or regulatory requirements.

Q. Would filling in other purported information gaps that the Public Staff references be relevant to its recommended equitable sharing disallowance?

A. No. Mr. Lucas did not perform a prudence review of the Company's historical CCR management practices or costs. Therefore, he did not identify any specific action the Company should have taken in the past to avoid its alleged present-day culpability. That, as Mr. Lucas has admitted, would be "impossible" and not helpful.

Nevertheless, Mr. Lucas complains that the Company did not produce "proposals, cost-benefit analyses, budgets, environmental studies, engineering plans, permit applications, and/or other planning documents" from when the Company constructed CCR storage units in the 1980s. Lucas Direct T., at 58. That information, he testifies, would "make it clearer what the Company knew at the time and why they made the decisions they did." *Id.* While that evidence might be relevant in a prudence review, the Public Staff did not conduct a prudence review and had no intent to:

> Somebody could have gone back and said what you should have done back at a certain time. And that's — you could be talking about the prudence, and I can't go back and — I can't go back and tell you exactly what would have happened what you should have done at a certain time. I'm not sure what good it would have done.

Tr. Vol. 19, p. 37 (E-2, Sub 1142). Therefore, the Public Staff's complaint here is simply a distraction.

III. CONCLUSION

Q. What respective roles have DENC's regulators played in how CCR has been generated and managed over time?

A. Providing reliable and affordable electricity has historically depended upon using a combination of fuel sources, including coal. With coal-fired electric generation comes byproducts from burning coal – CCR.

DENC's and the industry's CCR management practices have always been transparent. In North Carolina, for example, from 1967 until 2009 the Commission was solely responsible for regulating electric utility dams in the state. Many of these dams were constructed to impound water used to generate coal-fired electricity, including sluice water containing CCR. During that time, the Commission allowed, and the Public Staff never objected to, the continued use of those dams and impoundments.

Q. Is it, therefore, appropriate for the Public Staff to recommend disallowances for costs of providing affordable and reliable electricity to its customers for decades?

A. No. I do not raise these points above to try to point the finger for the CCR costs that the Company has and will incur. I believe that acknowledging why CCR was generated in the first place is necessary to understand how we got to this point. As is evidenced by the Public Staff's testimony, it is much easier to judge the Company's decades-old actions in hindsight than it is to grapple with those decisions in the context and environment in which they were made.

It is also not productive, as it is impossible to construct different alternative histories and realities to quantify how the Company's past conduct translates to present costs.

The Company understands that its present and future CCR costs are significant and, as reflected in my direct testimony, the Company has minimized those costs to the degree that it can while still fully complying with its new environmental compliance obligations. But the viability of the Company depends on its ability to reliably recover unavoidable, yet prudently and reasonably incurred, costs now and in the future. It is reasonable to expect that environmental compliance costs for utilities will only increase in the future. The Public Staff's position on CCR costs is shortsighted, and, if adopted and then applied to future situations, would create an unpredictable and unhealthy regulatory environment for utilities and their customers.

Q. Does that conclude your rebuttal testimony?

A. Yes.

Q. Mr. Williams, do you have a summary of your rebuttal testimony?

A. Yes, I do.

Q. Would you please now present your summary for the Commission?

A. Yes. Good morning, Chair Mitchell, Commissioners. I am Jason Williams, former director environmental services for Dominion Energy Services. My rebuttal testimony responds to the testimony of Public Staff witness Jay Lucas and Mike Maness related to the Company's request to recover its compliance expenses for managing CCR at its coal-fired generation facilities. In my rebuttal testimony, I address the scope of the issues in this case with respect to CCR management costs, which is whether the Company's management decisions and associated cost from July 1, 2016, through June 30, 2019, to comply with the federal CCR rule and state regulations were reasonable and prudent.

The Public Staff has not alleged that DENC has imprudently or unreasonably incurred a single cost in this case related to its CCR impoundments or landfills. I also respond to the Public Staff criticisms of DENC's historical CCR management

practices and discuss the inappropriateness of the Public Staff assuming the role of an after-the-fact environmental regulator. I will also address the Public Staff's criticism of my experience and expertise. Additionally, I provide the historical and regulatory context to properly frame the evolving body of scientific knowledge regarding CCR disposal knowledge -- disposal methods.

I describe how Virginia's and West Virginia's environmental regulators have taken a responsible and measured approach to regulating CCR and how the Company has complied with the directives and guidance from its regulators. I show that the Company has historically managed its CCR responsibly and in compliance with industry standards and with state and federal regulations.

Additionally, I respond to the Public Staff's accusation that the Company has not been responsive and forthcoming during the discovery process. Relying on that allegation, the Public Staff then baselessly inferred that filing -- filling in the information gaps would likely show problems with DENC's management practices that would further justify a disallowance. The Public Staff's characterization of the discovery

process is wrong and misleading.

Finally, I respond to the Public Staff's testimony intended to cast the Company in a negative light, including testimony about litigation against the Company, purported incidences of noncompliance, the Battlefield Golf Club and the Chisman Creek site.

As I explained in my rebuttal, the provisions of reliable and affordable electricity has historically depended upon using a combination of fuel sources, including coal. With coal-fired electric generation comes byproducts from burning coal, CCR.

DENC's and the industry's CCR management practices have always been transparent. For decades, the Public Staff has never objected to the continued use of electric utility dams and impoundments that were constructed to impound water and CCR as part of generating coal-fired electricity. It is important to acknowledge why CCR was generated in the first place in order to understand how we came to where we are today. The Public Staff's testimony shows that it is much easier to judge the Company's decades-old actions and hindsight than it is to grapple with those decisions in the context they were made. It is also not productive, as it is impossible to construct different alternative

histories and realities to quantify how the Company's past conduct translates to present cost.

The Company understands that it presents -- that its present and future CCR costs are significant. And as reflected in my direct testimony, the Company has minimized those costs to the degree it can while continuing to fully comply with new environmental regulatory -- or environmental compliance obligations. Again, no witness for the Public Staff has not documented that any specific cost that the Company has incurred from July 1, 2016, through June 30, 2019, related to its CCR impoundments or landfills is unreasonable or imprudent. This concludes my summary. Thank you.

MR. SNUKALS: Mr. Williams is available for cross examination.

CROSS EXAMINATION BY MS. CUMMINGS:

Q. Good morning, Mr. Williams.

A. Good morning.

Q. I'm Layla Cummings with the Public Staff.

Do you have with you a copy of the CCR rule with the preamble from 2015?

A. I do not have a complete copy of the rule with me.

Q. I wanted to start off by discussing some provisions, and I can bring them to you, or we can just agree.

Did the CCR rule preamble state that, overall, the information from commenters and the EPA's own review of state programs generally confirms EPA's original conclusion that significant gaps remain in state programs?

A. The preamble may state that, based on the conclusion of what was over a 20-year evolution of EPA's review of the coal ash practices.

Q. And Dominion, for all but one site, Mount Storm, the state environmental regulator is the Virginia Department of Environmental Quality?

A. Yes, that's correct. All facilities with the exception of Mount Storm, are located in Virginia.

Q. And you used to be an employee of the Virginia Department of Environmental Quality?

A. That's correct.

Q. In what years did you work there?

A. I worked there on two times. First was in -- beginning in 2004 time frame through 2007, and then again returned to the Company -- or returned to DEQ after being a regional waste manager for -- or

environmental manager for waste management would have been in approximately 2009 through 2010 or '11.

Q. And what did you do between 2010 and 2011 in working for the Company?

A. So -- well, not for the Company. I was working for DEQ. So, you know, I'll kind of cover my experience, in general, to answer your question.

Beginning of my career, nearly 20 years ago, my first role was working for a consultant where I was responsible for groundwater monitoring, groundwater reports, statistical analysis, solid waste facilities in Virginia, several of which were coal ash landfills. And then from there I became an inspector for Virginia DEQ. I was a hazardous waste and solid waste inspector. I then was promoted to a team leader where I oversaw all the Piedmont region's waste activities, inspections, permitting, et cetera.

From there I went to work for Waste Management where I was the environmental manager for 17 landfills, overall about 40 facilities throughout Maryland, D.C., Virginia, Delaware, and West Virginia. And then from there I went back to Virginia DEQ where I was the statewide solid waste permit coordinator. So I was responsible for the solid waste permitting within

the state of Virginia in establishing the standards permit writers would use. Also reviewed what we call the part A applications. I'm a professional geologist. That's where most of the geology is discussed, in those applications.

During that time, I also supported reg writing activities where I was part of the rewrite of the solid waste regulations in Virginia. Also in the prior role, I was part of the group that reviewed and was the technical lead for the state on reviewing the coal combustion byproduct rules. They are basically rules in Virginia that govern structural fills, operations where you could build structural fillers with CCR.

And from there I went to the Department of Navy where I started off as a remedial project manager. The program that ironically Mr. Lucas referenced yesterday, it's the circle program at the installations in North Carolina, and then expanded my role to continental U.S. where I wrote the guidance policies for five-year reviews and other evaluations of CERCLA facilities, and then was with a consulting firm again specializing in solid waste and landfills and including coal ash landfills. And then most recently joined

Dominion Energy, where I have been responsible for the last four years with CCR management. Hopefully that covered the question.

Q. Yes, I think so.

What year did you join Dominion?

A. I joined Dominion in 2015.

Q. On page 33 of your testimony, you state that --

A. Excuse me, is that rebuttal or direct?

Q. Yes, your rebuttal testimony.

A. Okay. Thank you. 33 you said?

Q. Uh-huh.

A. (Witness peruses document.)

Q. And I'm looking specifically at line 17 through 19. You state that Virginia's groundwater regulations and remediation requirements are focused on mitigating harm, not impacts, and as the reports on Virginia DEQ's actions indicate, impacts alone, without any sufficient risk of harm, did not justify further action beyond continued monitoring.

Is that accurate?

A. Yes, that's what my testimony states. As mentioned in this testimony and in additional information provided, all of these impoundments were

regulated by the Virginia version of NPDES permitting, or their adoption, which is a NPDES permitting. And one of the interesting things is that you must -- in order to issue a permit, they must find that that operation is in compliance with all the federal and state regulations. And I know Public Staff put a lot of focus on the antidegredation policy in Virginia, which talks about natural-occurring levels, but having worked at DEQ and having worked in Virginia groundwater regulation for 18 years as I laid out, I know that that is really a policy statement on the agency, and then the agency uses its permitting mechanism to meet that goal, meet that target. And in doing so, they make decisions based off of risk, relative concentrations versus what receptors are present, and then issue permits that are protective of the environment.

And again, in this issuing permits, they issue those permits, they cannot do so without determining that it's in compliance with all the state and federal rules. And as you are well aware, for 30 years, actually more than 30 years since the creation of the Clean Water Act, they've continued to reissue those permits every five years for our facilities, again, confirming and asserting that we are

in compliance with the Virginia standards.

MS. CUMMINGS: At this time, I would like to pass out an exhibit. And I would ask that this be marked as Williams Cross Exhibit 1.

Q. What I have just --

CHAIR MITCHELL: Ms. Cummings, the exhibits shall be so marked.

(Public Staff Cross Examination Jason Williams Exhibit 1 was marked for identification.)

Q. What I have just passed out as being labeled Cross Exhibit 1 is an executive order -- it's actually a packet. The first stapled portion is Executive Order Number 6 issued by the State of Virginia in 2018, and the second part of the packet is the report to the governor responding to that executive order from the Department of Natural Resources.

Are you familiar with this order?

A. I'm familiar, in general. I remember when it was issued, yes.

Q. So this order was to look at -- it was signed in April of 2018, and it was -- it was requiring a report to the governor.

Did the executive order -- the executive

order -- I'm sorry, let me go back here.

Can you read the first sen- -- would you agree, in general, that the executive order was to review the actions of the Department of Environment in Virginia?

A. So this particular order was really a comprehensive review of the overall agency. In fact, it references how funding has decreased. I think it says something like $27 million a year, or something along those lines, and focused on reviewing how they regulate and protect the environment in Virginia. And as I understood, looking for efficiencies.

I would note that, after this was issued, the State has issued additional permits to us confirming we were in compliance. Again, they can't legally issue permits without saying we were in compliance with the rules and regulations.

Q. So under executive action on page 2, under subpart A, little A, was part of the DEQ review to review DEQ's permitting programs to ensure that they actually are protective of the health and the environment?

A. Could you just say which one? I have two sets of documents here. Which one are you talking

about?

Q. Yes. So the first -- the executive order, itself, the first document.

A. Got you.

Q. And under -- this is page 2, under the title "Executive Action," and then A, and then sub little A.

A. Yes. I'm reading it now, and it says that it's asking them to review the permitting programs to confirm or ensuring that they're protective of the human health and the environment. I don't see anything here that it says that they are not.

Q. Can you read --

A. It also says "identifying within 90 days of critical updates to regulations." You know, this was issued in 2018, and I'm not aware of any recommendation that's been found that their regulations are unprotective. And again, we have gotten at least three permits issued following the existing standards following this that, again, confirm we are in compliance with the regulation. So I'm struggling to understand --

Q. Can you read little B there as well?

A. Of course. "Assessing the enforceability of permitting activity and determining if changes are

needed and the methods DEQ uses to craft such permits."

Q. And you said you are aware -- unaware of any findings from this executive order?

A. I am unaware of any that would impact what we are here to discuss today, which is cost incurred between 2016 and 2019, yes.

Q. Can you go to page 1 of the second packet, the report to the governor?

A. Yes.

Q. And can you read the third paragraph after the subtitle introduction?

A. The one beginning with "since DEQ was formed"?

Q. Uh-huh.

A. Okay. "Since DEQ was formed in 1993, the agency's funding has decreased significantly. Since 2001, DEQ's general fund appropriations have been reduced by $37 million per year and 74 positions have been lost. Most of DEQ's permit fees are set in code and have not been raised in recent years even as permitting complexity and volumes have increased. Further, the percentage of DEQ's operations supported by general fund has decreased from 40 percent to 20 percent leaving the agency more reliant on limited

permit fees and federal funds."

Q. Thank you. And can you also turn to page 5?

A. Okay.

Q. And can you read the paragraph starting under the italicized section saying "ensuring protection of our air, water, and land"?

A. Yes. "The air, water, and land protection and revitalization, formerly known as waste, divisions carry out DEQ's traditional full responsibilities. Unfortunately, since 2001, these divisions have experienced budget cuts of $4.3 million, $8.5 million, and $2.3 million respectively. This has impacted DEQ's ability to fulfill monitoring compliance and enforcement responsibilities. OSNR recommends the following administrative actions for existing programs. Many of these initiatives will require additional resources in order to carry out the recommendations."

Q. Thank you. And on page 7 under "improve water supply monitoring specifically," can you read the third bullet point?

A. "Expand groundwater monitoring to include wells that measure saltwater intrusion in eastern Virginia. Limited data shows significant saltwater intrusion to some areas which will only get worse as

sea level rise." I'm puzzled as to why that's applicable.

Q. I'm sorry. I meant the last bullet point. My apologies.

A. Okay. Let me read that one. "Initiate a service water management area study to explore the need for more active management to conserve water in areas where data indicates persistent low-flow conditions could harm in stream uses, aquatic environment" --

Q. I apologize. I'm going to interrupt you. I'm on the wrong -- page 6, under improved water --

A. To be honest, really, none of this has anything to do with our discussion.

Q. Can I just ask you to read the bullet point?

A. Where are we going to read now?

Q. Can you read the last bullet point on page 6?

A. Sure. "Restore funding for Chesapeake Bay water quality monitoring, laboratory services, and coordinator position to ensure Virginia can make progress towards Chesapeake Bay cleanup goals."

Q. Thank you.

A. Just for context, that has to do with nutrient releases, if you read that regulatory program. Again, not associated with CCR or this rate case.

Q. Are you aware that, in 2013, the head of the Virginia DEQ disclosed a gift from Dominion to attend the Masters tournament?

A. I think that was well publicized and aware, the one that he lawfully filed the report on that he had occurred.

Q. And he's still the head of the DEQ?

A. He is the director of the DEQ who answers to the Secretary of Natural Resources.

Q. And subsequent to that incident, did the Virginia State Assembly, did they pass a law on ethics reform to limit gifts to government employees?

A. Yeah, I'm unsure of that. I'm not familiar with that. That's outside of my purview as the environmental witness, as are moral judgments.

Q. I will move on.

A. Thank you.

Q. Did you review Mr. Lucas' testimony on historical documents and Mr. Junis' testimony from the DEC case that was incorporated by reference?

A. Just to make sure, because there is a lot of stuff, right?

Q. Yeah.

A. You are referring to the EPRI studies and EPA

studies that were included, and then some others from organizations like New Mexico University?

Q. There was a number, yes.

A. I think so. I believe I have got all those here.

Q. Are you specifically familiar with Junis Exhibit 8, the 1982 EPRI manual for upgrading existing disposal facilities?

A. Yes, I'm very familiar with that one.

Q. And did this document speak to retrofitting existing coal ash surface impoundments?

A. It did. It's a very interesting document. It does talk about retrofitting and potential options. There is a few things that are kind of key in the document, though. For one, it says perhaps the most important consideration in such circumstances is a determination of whether the site needs to be upgraded at all. The information presented in this manual presumes that the need to upgrade has already been identified by the reading. However, it should not be presumed that an old site must be upgraded to conform with the guidance here. And it also closes with limitations of the manual, which is kind of interesting, but EPRI usually adds those to their

financials, and it states decisionmaking within the context of this manual is difficult. So yeah, I am familiar with this document and, in general, what its purpose was.

Q. And isn't the first step towards identifying deficiencies and assessing risk at the site to do a detailed site assessment?

A. So the first step that is for these actions that would have been focused on groundwater would be monitoring the groundwater and see what those results are. And as we provided, in the state of Virginia they had a measured approach to that, where they require you to put in maybe one up-gradient well, one or two down-gradient, and then proceed based on those results, which is what we did at our impoundments and followed the State's recommendations and their continued permits issued for our path forward.

Q. And is it the Company's position that, in the absence of a regulatory directive to correct deficiencies, it would have been imprudent to take action when a site has the potential to cause contamination?

A. Well, that's an interesting question. Let's expand on that a little bit. So my understanding, part

of prudence is having a legal requirement. And if you look at this document from 1982, which I already pointed out suggests that it doesn't automatically require upgrading of facilities, and it even says shouldn't be used for decisionmaking purposes. I struggle with the idea that we would have read this manual, as I believe you are inferring, and would have decided to take a drastic action, very costly, and come before this Commission or other commissions in Virginia to request significant cost recovery on something that, at that point in time, there was no clear justification that it was needed. But let's say, hypothetically, that we did.

So let's say, in this report, they talk about liners, and they talk about, as Mr. Lucas stated yesterday, grout walls. You know, curtains, these slurry walls you can build. And somehow, although not specifically make a recommendation of something that we should have done, makes a loose reference to those items included in this report, which again suggests you not use it for decisionmaking due to the difficulty of the situation. We did that at Possum Point. Possum Point has a liner, Possum Point has a slurry wall, and yet Possum Point's groundwater results are nearly the

same as Bremo's, who don't have liners. It's also going to result in the same closure result in Virginia. Although not part of this rate case, it will be excavated as well. But let's go a step even further and say, let's say back in 1982, we decided to build a liner system that doesn't even exist yet. It's called a composite liner system. So let's say you are going to build what now modernly is required. That's 2 feet of clay, and then that's a 60 mil -- that has to do with the thickness -- high density polyethylene liner. And also in 1982, they wouldn't have invented -- since they hadn't invented that liner system yet -- they wouldn't have invented the modern mechanisms to weld those sheets together. So when you build a liner or you build a cap, they come in sheets that are maybe 30-feet wide. So you have to connect those, or otherwise, what's the point? And so they hadn't really developed that yet, but let's say they had.

Even with a 2019-designed composite liner system, the EPA's standard is to assume there will be one hole per acre over that entire site. It is also assumed that, because holes will occur, per EPA, one per acre, that at some point there will be impacts in groundwater, and as such, they require groundwater

monitoring, and they include a stair-stepped process to respond on to those. So they build -- here's the site. They assume that there is still going to be a hole. They assume there is going to be impacts, but they establish a program to monitor, and mitigate, and correct it if it occurs. So, you know, even if we had some ability to go into the future and build liners as constructed in 2019, even EPA still assumes that there will be impacts to groundwater even with that.

Q. Was dry ash handling available in the 1980s?

A. Dry ash handling was beginning to become available. In fact, we even installed in the '80s dry ash handling at one of our sites. But again, you know, as a utility tasked with providing reliable, affordable power, which is what our mission is to our customers, we have to weigh what the prudent decision is at each site. And we could take a comparison between Chesapeake and Bremo.

So Chesapeake began operation in the 1950s as a sluicing operation. So that means they wet transported the ash to ponds. And they operated that way up until the '70s when they switched to oil for a brief time, maybe less than a decade, due to the unfortunate cost impacts of the embargo -- oil embargo.

And when they went back to coal, they no longer had a pond to sluice to. The pond was full. And so, at that time, the Company made a decision, well, we can build a landfill on top of it, but to do that, you have to switch to dry. So we switched to dry pneumatic handling at the site so we could construct a landfill. The state at that time required a liner. That predated the regulatory requirements to have liners, but it was to provide a separation, because it was built on top of a pond, so it was very clear where the landfill starts and the pond ends. And so that one switched over, still sluiced bottom ash because it's a so much smaller volume, but converted the dry ash for that landfill purpose, because that was the land we had available and the most prudent decision for our customers.

In addition to that, in Chesapeake, we had a massive market for potential reutilization of the ash. So for those that aren't familiar with the Hampton Roads area, pretty much every road is made out of concrete, and you really can't drive anywhere without having to go across a bridge. So there is a massive concrete market there. So shortly after converting to dry ash management for the fly ash, we partnered with a company, PMI, who put in what's called a carbon burnout

unit, and it burns up the excess carbon so we could reuse a large volume of that ash into the -- into the concrete manufacturers of Hampton Roads. So that's one side where we made a decision to go to sluice -- from sluicing to dry, and again, it was because that was the most prudent decision versus there was no place to make another pond, we already had to do significant air pollution control and enhancements to meet the Clean Air Act requirements which didn't come into effect until the early '70s.

Now, if you look at Bremo, Bremo started operating in 1931. It began operating as a sluicing operation, and it continued to do that until it switched to natural gas in 2014. And so throughout that time, the Company sluiced ash, and in doing so, they were able to have land to build additional ponds. So they were able to build a pond directly adjacent to the north pond, and as the state regulatory agencies continued to issue permits, and continued to deem that that operation was protective, the Company made the most prudent decision that it was not in the customer's interest to upgrade the dry handling at Bremo, because we had these other ponds, there was sufficient lifespan left, we should continue using those and continue

sluicing.

So I share that just to give a little more perspective on, yes, it was available, and why, back in 1982, you would have maybe made that decision to go to dry. And it is difficult. You know, we are all sitting here in 2019, and we have 2019 regulatory standards, 2019 social expectations, whatever it might be, but you really have to go back to 1982 and what was known at that time and how these operations function.

Q. And I am trying to bring the conversation back to 1982 and the EPRI manual, and one of your engineers just pointed out to me that the manual does have a whole chapter on liners. Have you reviewed that?

A. Yeah, yeah.

Q. And do you assert that all those options for liners would not have made any difference; is that your position?

A. What I'm saying is, in 1982, the liner systems -- they were pretty poor methods for welding or connecting these liners to each other. Remember I said they are sheets? You can't put on a truck a 50-acre role of matting, so a lot of them were PVC materials which you had to glue together or overlap, which if you

just overlap can still leak. And then other ones were much thinner, like at Chesapeake, the 20 mil HDPE.

So again, you know, this is 1982 technology. If EPA is telling me, in 2019, that my Cadillac version of a liner system with a composite liner of 2 feet of clay and a 60 mil HDPE, which is far greater I believe than what was in here, is going to leak through one hole per acre, then I would have no other reason then to believe that these 1982 liners too would have leaked. As evidenced by the clay liner at Possum Point, which has similar groundwater results as the Bremo station, which doesn't have a liner.

Q. In several places throughout your rebuttal testimony you state that the Company has always complied with the directive of environmental regulators. You also state that the Company has never installed a single voluntary groundwater monitoring well in responses to data requests from the Public Staff.

Is it the Company's position that doing the bare minimum for compliance is proof that the Company has been reasonable and prudent?

A. So I would say I think our track record shows that we have not always done the bare minimum, but as a

utility, again, we have to make the decision based off providing reliable, affordable power what path forward we should take at every crossroads that we entertain. And an aspect of that is what's legally required and typically what has to be justified in any sort of future rate proceeding. And so as such, we would have moved forward with what was the proper action at that time.

Q. On page 15 of your testimony --

A. Are we talking rebuttal?

Q. Yes. I will consistently stick with rebuttal.

A. Thank you.

Q. You state that the Public Staff did not provide the proper context to its analysis of the evolving knowledge of potential impacts of CCR, and you state that you have provided a summary of this regulatory history, much of which was omitted from the Public Staff testimony.

Can you tell us which reports, exactly, that you allege the Public Staff omitted?

A. Can you reference a particular line in mine? I was trying to get to the page here. A particular statement that you are reading of mine?

Q. Yes. It's just in my notes, so let me look it up.

Do you recall stating that the Public Staff omitted?

A. I would like you to refer to the line in my testimony, then I would be happy to answer any questions about what I stated.

COMMISSIONER BROWN-BLAND: Looks like it was line 11.

(Pause.)

Q. So I'm starting here on page 14, line 21, "That the Public Staff has also omitted findings and other reports that would provide additional context."

A. Correct. How about I answer that one first? What I was referencing there are a couple of example of that. One would be the inclusion of the special order from 1986 for Possum Point, and an assertation that the Company is clearly out of compliance with this order from 33 years ago, simply because we did not build a dry ash. And ironically the exhibit included by Mr. Lucas included a cover letter from the acting enforcement manager for DEQ at that time in the early '90s saying we are dereferring this case as all conditions have been met. So that would be an example

of omitting findings or reports that would have clarified context instead of portraying that we were out of compliance. And then an additional one would be they included a seep mitigation plan in their testimony and implied that that came from our ash ponds, and only included the text, not the figure that goes along with that, which we provided in our rebuttal. And the figure shows that that seep mitigation plan is focused on a seep that occurred over by the power station that's not connected to our ash ponds. So those would be the couple of examples just off the top of my head where information was kind of misleading or omitted.

Q. And I would like to talk about Possum Point a little later, but --

MR. SNUKALS: I have to object to the continued interruption of Mr. Williams. If you could please allow him to finish his answer before you continue your next question. Thank you.

Q. Would you like to finish your answer?

CHAIR MITCHELL: I will sustain the objection, and if the witness does not ask the question -- does not answer the question asked, I will allow you to ask the question again.

MS. CUMMINGS: Okay. Thank you.

Q. So you do go through some regulatory determinations.

First, you discuss the Bevill amendment, which was the decision by Congress subsequent to the enactment of RCRA to further study and assess whether coal ash waste should be regulated; is that correct?

A. Correct.

Q. But coal ash, it does contain constituents that are a risk to the human health and the environment when they exceed certain concentrations in groundwater, correct?

A. Well, that's a pretty complex question. Many things in the world contain constituents that could be harmful at certain levels. The important thing with coal ash, as it is with all matters of waste, is how they are managed, how they're monitored. And then based on those relative results, what actions would be required. So I'm not sure I would support the --

Q. You didn't --

A. I'm done.

Q. Okay. But arsenic, is that a -- that's an example of a constituent that would be harmful at certain concentrations?

A. So arsenic is present in coal ash, just as

it's present in most of the coastal plain soils of the U.S., and the federal government promulgated an MCL that establishes a drinking water standard for people who are exposed to it over extended years. So there is a limit that the federal government provided for that.

Q. And you also discuss subsequent reports and determinations by the EPA that assess the appropriateness of regulating coal ash under subtitle C or subtitle D of RCRA; is that correct?

A. Yes. Their determination that it should stay under subtitle D and was not worthy -- or required for hazardous waste.

Q. You specifically discuss the 1980 EPA report, the 1993 regulatory determination, the 1999 EPA report, and the 2000 regulatory determination?

A. Yes, that's correct.

Q. And I would like to turn to the 1999 EPA report to Congress.

MS. CUMMINGS: And I'm going to hand that out at this time as a cross exhibit. And that might take a moment. It's large.

CHAIR MITCHELL: Ms. Cummings, we will mark this exhibit Public Staff Cross Examination Jason Williams Exhibit 4.

(Public Staff Cross Examination Jason Williams Exhibit 4 was marked for identification.)

Q. So to help out, and finding some of these sites that are large in here, I didn't put them on a -- I will try to put them on the scene, but I'm having a bit of technical difficulties. Here we go.

So the report that we have just marked as Cross Exhibit Number 4, including two volumes. The first, Volume 1, is the executive summary, and then there is a Volume 2, and I'm specifically referring to the Volume 2, and it can get a little confusing with the page numbers, that's why I pointed out. There is two page 3-4s. I'm talking about page 3-4 -- and I will pull it up -- that's in the second volume.

So, Mr. Williams, in your testimony about the 1999 EPA report, you say that the EPA could not identify any particular actions the Company or industry should have taken to mitigate risk from large service impoundments.

A. That is the -- line 10 through 12 in my testimony.

Q. And you can see on the screen, or you can flip to it in the exhibit. This is page 3-4 in Volume

2. Would you mind reading into the record that quote?

A. Yes. "In addition to regulatory permits, the majority of states are now able to require siting controls, liners, leachate collection systems, groundwater monitoring, closure controls, daily or other operational, cover and fugitive dust controls. EPA believes the use of such controls has the potential to mitigate risks, particularly groundwater pathway risks, and commingled -- comanaged" -- I'm sorry -- "waste disposals."

Q. So the EPA here did identify some ways to manage risk?

A. So they identified ways to manage risk that the states were using for sites going forward. Those aren't for sites that are already constructed in place. And this is another important subject, as we reference to plucking particular lines out of a report. With scientific studies and engineering reports, it's important to look at the entire breadth, and ironically, section 3-5, which is of the first volume -- not to get mixed up here, since we have a document that appears to start over in numbering -- number 3-5, the agency found current management of practices and trends in existing state and federal

appear adequate for protection of human health and environment. It also states that they present a low inherent toxicity or characterize hazardous and generally do not present a risk to human health or the environment, which is on the same report, just in the first page 3-5 that you get to.

Q. Appears we may have had a -- I am not finding it on page 3-4 either.

A. It's 3-5. It's like the sixth page in from the cover page.

COMMISSIONER CLODFELTER: What you have on the screen is 3-4 from Volume 1, not Volume 2.

MS. CUMMINGS: Oh, okay. Thank you for the correction.

Q. You also briefly summarized the 2000 regulatory determination, and this determination was following up on the 1999 report; is that correct?

A. That's correct.

Q. And that was the first time that EPA specifically decided to regulate under subtitle D?

A. That was when they made the determination that it should be handled under subtitle -- or reaffirmed their decision, going back I guess to '88, that coal ash should be managed under subtitle D not C,

which again is where the nonhazardous solid waste is.

Q. And in 2000, they decided that national regulations were nothing under subtitle D, subject to check?

A. Subject to check.

Q. And on page 22, you state that Virginia and West Virginia were on the leading edge of coal ash regulation on the state level?

A. Correct.

Q. But that federal regulation was needed because other states were not regulating as well?

A. Yeah. Virginia has a pretty long history of management of solid waste in Virginia. In fact, they promulgated their solid waste regulations about four years before the federal government did. Most people were surprised to find out that all your municipal waste, your household hazardous waste, things like that that go to landfills didn't have to have liners until 1993, many of which continue to operate without liners and are monitored and shutting down. Latest shutdown will be 2020 in Virginia. And so they have had a program that's been ahead of the federal rule in managing, and then also through managing groundwater monitoring at surface impoundments as early as 1983 at

one of our sites. They were 30-plus years ahead of the federal government's decision to require groundwater monitoring at surface impoundments. So I would stand by that point, that they were the leaders.

Q. And the 1999 report -- and again it may be hard to find -- I believe this is actually in the second volume, figure 3-5, but I can pull it up -- documented a trend in utilities moving from surface waste impoundments to landfills.

A. If you could cite exactly where it's at. I mean, I don't disagree that that was probably the case, but again, this is nearly 20 years after our impoundments were built. So it's a little confusing what you're asking me.

Q. You did build impoundments in the '80s, didn't you?

A. We did. This document is from 1999.

Q. But it's documenting trends over time?

A. It's documenting the latest trends and regulation activities, which many have switched to dry handling, largely for air pollution-control equipment like we did in Chesapeake, and, you know, those units, like Clover, that were built in the '90s were built with dry handling, because that was the most efficient

handling since they didn't have a wet sluice system in place. So if you could point me to the place in this document where it says that trend was the result of impacts and environmental harm, that would be helpful.

Q. I don't think I have a quote to that effect.

A. Yeah. I'm pretty sure it doesn't say that. It just talks about industry trends at the time of this report, which is substantially past when we built our impoundments.

Q. But would you accept that there was a trend in states moving to landfills at the time, and that may have likely been because landfills had liners?

A. Yeah. I'm not gonna speculate on that, because some impoundments had liners, much like I referenced earlier; our Possum Point Pond D had a liner. So it would be subjective to guess as to why. But again, I think there were a number of economic reasons that dry ash management for newly constructed generation, much like our Clover power station, would have gone to a landfill. And as I mentioned yesterday in Commissioner's questions, those -- that facility is lined because it was subject to the Virginia regulations that were 20 years ahead of the federal government that required industrial landfills to have a

liner.

Q. And my only point is that, in the '80s, liners were becoming more prevalent, and just to this point of what states were requiring or weren't requiring, or what trends were going on, can I ask you to read this quote? This is also the second volume, page 328.

A. I'm gonna go to the actual document, if that's okay. I have a little trouble reading from the screen.

Q. Yeah. I understand.

A. All right. So this is the second 3- -- if you could repeat, please?

Q. 3-28.

A. Thank you. Thank you. Let me find that line. 3.3.4, okay. "An examination of the geographic distribution of new lined surface impoundments suggests that liner requirements in several states have changed. The change from unlined to lined surface impoundments appears concentrated in the states of Georgia, Illinois, Indiana, Kentucky, Missouri, and Texas. These states account for 44 percent of the active comanagement surface impoundments in the EPRI survey. In these six states, only six, or 15 percent, of the

impoundments opened before 1982 are lined. On the other hand" -- or did you line that? Yes. "On the other hand, all the impoundments opened since 1982 are lined."

Q. So after the 1999 report, you also briefly summarized the 2000 regulatory determination, as we already noted, and the 2000 regulatory determination, that was an exhibit to your testimony?

A. Yes.

Q. And you can look this up, or just subject to check, would you accept that the EPA, in that regulatory determination, said that groundwater monitoring, at a minimum, is a reasonable approach to monitor performance of the unit and a critical first step to identify damage?

A. Well, I would -- I would say, subject to check, however, my understanding is that's focused on landfills. They decided to retain, I believe the exemption for CCR surface impoundments, so I'm not sure that statement is directed at impoundments and landfills. I would really need to see that section.

Q. It's page 17 of 25 of your exhibit.

A. (Witness peruses document.)

I'm having trouble locating it, but subject

to check, I will -- yes, let's say that they recommended groundwater in 2000.

Q. Well, you just said that may be likely because they were talking about landfills. Wouldn't surface impoundments require groundwater monitoring? Wouldn't that be more important at surface impoundments where there is not a liner?

A. Well, just to clarify, in 2000, we were groundwater monitoring all of our impoundments. So we were doing what the EPA was recommending.

Q. You just started at some of them, right? Bremo you had just started, and it wasn't at all the impoundments?

A. No, that's not correct. Bremo was the last -- well, yeah, there were ABC that did not have monitoring at that time, but the Chesterfield lower/upper had been since the mid '80s, and CEC I think goes back to the early '80s.

Q. And --

A. I've got that form, if you need the dates exact.

Q. Sure. And that was presented to you in Lucas Exhibit 1, all those dates?

A. Yes.

Q. Your Exhibit 5 is the 1998 Virginia DEQ guidance, and you say that Virginia took a comprehensive approach to groundwater monitoring?

A. Correct. What DEQ did is they had almost a stair-stepped approach where they would require a certain number of wells to start maybe one up-gradient, one or two down-gradient, and then they would expand the networks as needed based on those results. They would also look at the results each time and determine if there was an additional monitoring required, perhaps additional frequency, or, as I said, more wells, or they would determine, in the most extreme -- or more extreme cases, that they may suggest doing a risk assessment. And then based on that, they would determine if natural attenuation was appropriate or if there were other more active steps. So yeah, it was a very stair-stepped kind of comprehensive program as to how they address groundwater.

Q. I'd like to turn now to that exhibit and page 25 of that exhibit.

A. (Witness peruses document.)

And again, Exhibit 5, correct, the '98 guidance?

Q. Yes.

A. All right, I'm on page 25.

Q. And I apologize, I think I'm confusing your -- the top of your pages with the bottom. So it's page 14 at the top. Can you read that highlighted part?

A. Yes. "In summary, the authority exist" -- I apologize. I'll start over. "In summary, the authority exists for items such as groundwater monitoring, facility upgrades, and response to groundwater contamination, and groundwater remediation to be required. The VPDES permit regulation contains similar citations as the BPA permit regulation. However, as noted above, this is still a controversial issue for VPDES permitting and currently subject to a number of lawsuits. In that regard, if" --

Q. And you can stop there. Sorry to interrupt you.

A. Yup.

Q. On page 25 of your testimony, lines 9 through 11, you say DEQ has broad authority to require groundwater monitoring. But they show in this document that they had some concerns about requiring that monitoring, correct?

A. Well, let's use their exact words. They

raised that there were concerns and there were lawsuits. You know, I'm not aware of any VEPCO lawsuit against DEQ when they required us to start groundwater monitoring, which, as I mentioned, a number of our ponds started before this guidance was even in existence. Certainly, once this guidance was passed in 2000, when it started at Bremo, we had no objection to the groundwater requirements. So I'm not sure how that's applicable to Dominion, as we were not partied in the lawsuit to prevent the state from doing it. And as they state in their own guidance, they have the authority to require risk assessments, corrective actions, remediation.

Q. My only point is they may have been a bit hesitant to do that?

A. I think that's subjective, and I wouldn't be able to talk about how they felt in 1998 about asking us to add groundwater. Again, they did ask us, and we complied with that.

Q. Okay. On the next page of that same document under "type of contaminants," so page 15 at the top.

A. Yes, ma'am.

Q. Sublittle B, can you read that about -- and that concerns the type of contaminant and earthen dams.

A. "If earthen, are they lined or unlined?" And you said read the parentheses as well?

Q. Yes.

A. "Obviously, if unlined, there would be much greater potential for groundwater contamination to occur."

Q. So, at the time the Virginia DEQ did acknowledge that there was potential for groundwater contamination from unlined impoundments; is that fair?

A. I think that's fair because, obviously, they started requiring groundwater monitoring so that they could monitor and mitigate those concerns and require any corrective actions that were necessary, which with the exception of Pond D weren't required at our sites. And again, you know, it's part of their justification for requiring groundwater monitoring.

Q. And if we could talk about Possum Point and Pond D, on page 34 of your rebuttal testimony with regard to Possum Point -- if you can turn there now -- you state that the special order was canceled due to full compliance with the order.

A. That is what the testimony to the State Water Control Board showed on behalf of DEQ, and the approval memo that we provided -- or I'm sorry, confirmation

memo that we provided to Public Staff states that we have complied with the order and that any applicable requirements have been incorporated into the 1991 permit.

Q. And that same memo you supplied the Public Staff was included in the Lucas exhibit on the special order?

A. No. That's what's interesting is it appears Mr. Lucas had reached out to DEQ for information on Possum Point and had gotten, in return, this special order with the letter recommending dereferral of that action. We, subsequently to that, reached out to DEQ and asked the question, hey, there's been an allegation that we are not in compliance with this. You know, what records do you have? And they sent us the records on that, and in addition to the letter in Mr. Lucas' testimony, directly behind that in the record was the board's memo formally cancelling that special order. So it was an additional document that Mr. Lucas didn't provide. I don't know if he got that document when he reached to DEQ or not, but it wasn't provided in his exhibit.

Q. So this is the document you reference on line 9 of your testimony; is that the May 14th, 1991?

A. Yeah. That's referencing the -- that's referencing the letter that Mr. Lucas included.

MS. CUMMINGS: At this time, I would like to pass out another cross exhibit. This would be Cross Exhibit Number 5.

CHAIR MITCHELL: Ms. Cummings, I'll stop you there. We will take our break and come back on the record at 1:00, so just hold your exhibit until that time. Thank you. Let's go off the record, please.

(The hearing was adjourned at 11:33 a.m. and set to reconvene at 1:00 p.m. on Wednesday, September 25, 2019.)

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 appears in the foregoing hearing were duly sworn; that the testimony of said witnesses was 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 this action; 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 28th day of September, 2019.

JOANN BUNZE, RPR

Notary Public #200707300112