PLACE: Hel d vi a Vi deoconf er ence
DATE: Mbnday, Sept enber 14, 2020
TIME: 9:01 A.M - 1:30 P. M
DOCKET NO.: E-7, Sub 1214
E-7, Sub 1213
E-7, Sub 1187
BEFORE: Chai $r$ Charlotte A. Mtchell, Presiding Commi ssi oner ToNol a D. Brown- Bl and Commi ssi oner Lyons Gray

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IN THE MATTER OF: DOCKET NO. E-7, SUB 1214 Application of Duke Energy Carolinas, LLC, for Adj ustment of Rates and Charges Applicable to El ectric Utility Service in North Carolina

DOCKET NO. E-7, SUB 1213
Petition of Duke Ener gy Carol inas, LLC, for Approval of Prepai d Advantage Program

## DOCKET NO. E-7, SUB 1187

Appl ication of Duke Energy Carolinas, LLC, for an Accounting Order to Defer Incremental Storm Damage Expenses Incurred as a Result of Hurricanes Fl or ence and M chael and Winter Storm Di ego

VOLUME 21

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CHAI R M TCHELL: All right. Good morning. It's a little bit after 9:00. Let's go on the record, please. Before we resume with the Public Staff panel, I will entertain motions or questions, if there are any, from counsel.
( No response.)
CHAI R M TCHELL: Al I right. Hearing none, Mr. Mehta, you may proceed. Mr. Juni s, Mr. Maness, I just remind you, gentlemen, that you are under oath.

MR. MEHTA: Thank you, Chai r M tchell. Wher eupon,

CHARLES J UNI S AND M CHAEL C. MANESS, havi ng previ ously been duly affirmed, was examin ned and conti nued testifying as follows:

CONTI NUED CROSS EXAM NATI ON BY MR. MEHTA:
Q. And good morning, Mr. Maness. Good morning, Mr. Junis.
A. (M chael C. Maness) Good morning.
A. (Charl es Junis) Good morning.
Q. Mr. Junis, if you would turn to page 7 of your testimony.
A. I'mthere.
Q. And you indi cate on line 11 that there are 10, 940 groundwater exceedances confirmed by DEC's groundwater monitoring data, correct?
A. Yes, sir.
Q. And that data, all of that data, was submitted by DEC to the envi ronmental regul ator, the DEQ correct?
A. Yes, sir.
Q. And if you flip over to page 46 of your testimony.
A. (Witness peruses docurent.)

I'mthere.
Q. And agai n , on page 10 and 11 , you indi cate that the cumul ative total of groundwater, quote, vi ol ations has reached 10,940, correct?
A. Yes, sir. And those are specific to the North Carolina sites. And I thi nk that is one of the key differences, as we tal ked about on Friday, bet ween the records of Domini on and Duke, and that there is this plethora of data that is confirmed groundwater violations in violation of the 2 L standards that -degrading the natural quality of the groundwater.
Q. All right. And I'mlooking at foot note 57, and you indi cate that, of that 10, 940, it I ooks like

3, 091 were located, or di scovered, or reported, or what ever word you want to use in the prior case, correct?
A. That's correct.
Q. And then -- and 10,940 is the cumul at ive total, so it would incl ude that 3, 091, correct?
A. Yes, sir.
Q. And what that represents, M. Junis, the 10, 940 number, it represents the number of sampling events across the entirety of DEC' s ash basins, the whole groundwater system across the ash basins in whi ch the monitoring results exceed the 2 L standards; did get that correct?
A. Yes. The -- around the North Carolina basins, those are vi ol ations of the standard in exceedance of al so the background at or beyond the compl i ance boundary.
Q. Mr. Junis, l want you to imagi ne a groundwater pl ure that covers an area near one of these basins, and we'll say it's a -- it's one of the retired basins. So it's been dewatered. There's no longer any hydraulic head that you were tal king about earlier and Mr. Hart tal ked about the other day, and I think Mr. Quarles too. And let's al so assume that, just like

Mr. Hart was tal king about, this is a heavy clay soil and the contaminants in the plume are metals, so they're not really moving much.

Are you with me so far?
A. I don't think you can assume that they're not moving much because they're clay soils, because a lot of these basi ns have been in service for decades. And so those attenuative [sic] properties or the capacity of those soils to retain those metals can be exhausted, so they' re not going to retain them as much. I will agree that the hydraulic head would be lower because you don't have a standing level of surface water, but there still is some push. I would say that the groundwater would be a little bit slower at that point, though.
Q. Okay. If it's moving, it's moving very slow y, as Mr. Hart indi cated, when you have metal contamination and heavy clay soils, whether it's a Iessened attenuation, but it's still attenuated, right?
A. And I would add that it is site specific regarding the amount of cl ay soil and then the Iayers of the soil levels, you know, the mix of sand or silty soils. And it can even be specific to each basin.
Q. Well, that's a very good point, Mr. Junis.

So in our imagi nary pl ume, we' re in one in whi ch the contaminants are really not moving very much based on all of the factors that Mr. Hart and Mr. Quarles have al ready testified about; are you with пе?
A. In general, groundwater moves slow y. Obvi ously, if there is that hydraulic pressure froma standing surface water, then it would move qui cker, but I thi nk we can keep moving with the scenario.
Q. Thanks. So let's say, Mr. Hart [sic], in this area, in our imginary area, there's a single groundwater monitoring well, and it is sampled under protocols established by the DEQ once a year. With me?
A. Yes, sir.
Q. So you have, at the end of the year in whi ch this well is sampled, one exceedance, or in your terms, a, quote, a violation of the 2 L standards, correct?
A. Yes, sir.
Q. Well, let's say, as a result of that exceedance, the DEQ says, well, we need more wells. And so they spend another year putting in 49 more wells and they say we're going to sample these once a week, except just to make the math easier, we'll let you of $f$ on Christmas week, and we'll let you off on the week of
the 4 th of July, correct? With me so far?
A. I am I would say that that is not a typi cal procedure, in recognition that there's usually a site anal ysi s of those subsurface conditions. And usually there's recognition that that frequency would be quarterly, or twi ce a year, or annually. Weekly would be a very hi gh frequency.
Q. All right. But still, we're operating in this site-specific example in which, for whatever reason, the DEQ wants it weekly.

And you're right, it's an iterative process, correct, Mr. Junis?
A. Yes, sir.
Q. So you put in some wells, you do some anal ysis of the results, you might put in some more wells, and it goes on like that, correct?
A. Yes, because you're trying to assess the extent and severity of the pollution.
Q. Okay. And so by the end of the year -- now we're sort of in year two, but as per the requi rements of the DEQ, we' ve got 50 , not $j u s t$ one wells, and they' re bei ng sampl ed weekly, except we' re not doing it during Christmas week and during the week of the 4th of July. Are you with me?
A. I'mfoll owing.
Q. So you' ve gone -- and then they, you know, conti nue to sample through the third year, and so now we' ve not just one exceedance or viol ation, in your terns, we have 2,500 ; do we not?
A. So you're saying, in each of those 50 wells, you have an exceedance or vi ol ation happening 50 weeks of the year, so in one year, yes, you would rack up 2,500 vi ol ations.
Q. Okay. And so basically you have a 2,500 -fol d increase in the number of, quote, viol ations, but the pl une is basi cally exactly the same as it was two years ago; is that right?
A. I would not characterize it like that. That -- you have now much more defined the extent of that plume, because you're not going to put all 50 wells on top of each other, you are goi ng to spread them out to determine are there other pathways for these pollutants to travel. And because that groundwater is constantly moving, sometimes slower than ot hers, you are sampling new contaminants. This is not the same col um of water.

So that is recognition al so that, if you' ve put themfarther out, has this pl ure increased in size?

But it is more defined in terms of a shape and al so the severity in terns of the concentration of those cont ami nants.
Q. I understand, Mr. Juni s, but, you know, I di dn't tell you how big the area was. Maybe the area is a very large area and can easily accommodate well-spaced-out 50 wells.

So regardless, you still have, under your math, 2,500 viol ations at the end of year three, whereas at the end of year one, you had one viol ation, correct?
A. Well, l would just like to clarify that it's not my math. This is the application of the standard. That if you exceed the standard and background at or beyond the compliance boundary, that is a violation which is supported by the amicus brief filed by the DEQ.
Q. I understand your position on this, Mr. Junis, and maybe I shoul dn't use "your math."

According to the math, you now have 2,500, quote, vi ol ations whereas a couple years before, you had one, quote, viol ation, correct?
A. Yes, sir.
Q. So, Mr. Junis, the number of, quote,
vi ol ations $j$ ust by itself is not a meani ngful data point all by itself, is it?
A. There is al ways important context, and I think that's recognized in the description of what the procedures are within the state, and that you're not just si nking wells right on top of each ot her. Again, you are trying -- the intent is to define the extent and severity of the pollution, and that's what's happeni $n g$ in the past two- pl us years.
Q. And I agree with you, Mr. Junis, that you shoul d be looking at the context, but the context with regard to this example is, you know, 49 more wells and a lot more frequent sampling, isn't it?
A. In that example, yes, but I don't thi nk that parallels very well to the reality that we' re facing.
Q. So you don't think that the reality that we're facing includes many more wells at each site and more frequent sampling at each site?
A. There are more wells and there are more iterations of sampling, but the example of weekly at one site l don't think is an appropriate parallel or comparison.
Q. Well, if you just made it quarterly, would it be?
A. I think that would be more realistic. But I thi nk you'll see -- and this is di scussed in some of the hi storic documents -- that they may start at a hi gher frequency, and then based on what they're seei ng, and thei $r$ greater determination of what those groundwater flows are, you may see a decrease in that frequency; but then, as you're adding more wells, obvi ously, there's more sampling events.
Q. And as you're adding more wells and adding more sampling events, and assuming they're hitting the same pl une, Mr. Junis, your number of, quote, viol ations is increasing whether or not the plume is getting any worse, correct?
A. Well, and that's where you're dealing with the iterative process, that typically, if you're seeing a vi ol ation in one well, then you are going to add wells further out or in points where you think that pollution could be kind of sneaki ng through, another pat hway. So you're really confirming the exi stence of that plume and, again, the extent and severity.
Q. Mr. Maness, let's turn back to you for a moment. And as I understand your position, the coal ash costs that DEC has incurred and it seeks to recover in this proceeding are what you call, I think, deferred
expenses, correct?
A. (M chael C. Maness) (No audi bl e response.)
Q. Mr. Maness, you are on mute.
A. I apol ogize. Deferred expenses, yes, I bel i eve that's the terml use. And gi ven the controversy that we had in the last case regarding the use of that term and I made a point to submit a data request to the Company in this case, Data Request 159, to untangle many of the statements that were made in the last case. And that -- the response to that data request clearly illustrates that when the Company makes the deferral entries on its books, it isn't, in fact, def erring the GAAP ARO depreci ation expense that it records for financial statement purposes. It makes a deferral entry for regul at ory accounting purposes of that expense. And so yes, I thi nk the term"deferred expenses" is correct.
Q. Well, we did, as you indi cated, go through all that in the last case, the last DEC case, certainly at -- in great detail in the last DEC case, probably in less detail in the last DEP case. And the Commission di sagreed with your characterization of these costs as deferred expenses; di d it not?
A. Yes. But I did not feel that that
determination really reflected the true facts of the matter, and that's why l elicited additional facts from the Company in this case that l believe do clearly illustrate that what the Company is deferring on its books are, in fact, its ARO depreci ation expenses that it records for financial accounting purposes before consi deration of regul atory accounting entries.
Q. And if you -- if you look at page 289 of the prior DEC order, the order issued in Docket E-7, Sub 1146. Do you have that with you by any chance, Mr. Maness? Or you could pull it up.
A. I'mpulling it up, if you can give me the page reference again.
Q. 289 .
A. Yes, sir.
Q. And in the Iast full paragraph there, would you agree with me that the Commission determined that your characterization of the costs as deferred expenses was, quote -- very last sentence, quote, not persuasive, not supported by authority, and not determinative, correct?
A. Yes. And I guess I would apol ogize to the Cormission for not being persuasive in the Iast case, but when it said that it was not supported by
authority, as I said, that was the reason that I elicited additional information fromthe Company in this case that, to me, clearly denonstrates that that regul at ory asset that's recorded on the Company's books for North Carolina retail accounting and ratemaking purposes is, in fact, a deferral of depreciation -- ARO depreciation expense charges that the Company makes to account for a three depreciation expense.
Q. Okay. And in the very next sentence, Mr. Maness, the Commission said -- this is the Iast paragraph on 289 that carries over to the next page -quote:
"It is al so incorrect as a matter of accounting."

Is that what the Commission said?
A. It is what it says, and, unfortunatel y I di sagree with that concl usion.
Q. Vell, Mr. Maness --
A. If you read al ong -- if you read al ong -excuse ne, l'msorry.
Q. No. Go ahead and finish your answer.
A. So if you read al ong in that paragraph, it says:
"As witness Doss testified, the Company has
accounted for these costs, is required under GAAP and FERC uni formsystem of accounts."

Now, I agree with that, but that only tells part of the story. The -- of course, if you ignore and pretend it doesn't exist, the regul atory accounting entries that the Company has made on its books, you woul d say that use an ARO depreciation expense is in compliance with GAAP and the FERC uniformsystem of accounts. But the part of the story that that sentence did not tell is that GAAP and the FERC unif ormsystem of accounts al so allow for the recognition of regul atory assets and liabilities when rate-setting authorities, such as this Commission, make entries that i ndi cate that they are not going to have revenue recovery at the same time that that expense is reported; that they are goi ng to, in effect, provi de for recovery in the future.

And when that happens, the Company is al lowed, under GAAP and under FERC uni form system of accounts purposes, to reflect those deferrals in the Company's financial statements. And that is, in effect, what the Company is doing. The Commission, begi nni ng back with the order in Docket Number E-7, 723 about AROs and nucl ear decommi ssi oning
expense, told the Company -- instructed the Company in that case to, in effect -- North Carolina retail regul at ory accounting purposes, to essentially reverse the income statement effects of AROs. And furthermore, instructed the Company not to reflect those in its financial statements for North Carolina retail regul atory accounting purposes.

That's one of the reasons that, in addition to this deferral accounting, the ARO asset and the ARO Iiability that the Company records for financial statement purposes are not reflected in rate base.

And therefore, l still stand by the -- my assertion that what I amsaying is correct as a matter of accounting, that they make these deferrals of expenses as a result of the Commission's order, if not in Sub 723 and E-7, Sub 1110, and that those are in accordance with GAAP and FERC systems of accounts and required principles. And furthermore, that those entries, thensel ves, have the effect of removing GAAP and FERC ARO accounting from consideration as to how rates are set by this Commission.
Q. All right. Thank you, Mr. Maness. And I would like, if you would, to turn to DEC Cross Exhi bit 25, if you could pull that up for me.
A. Is that the --
Q. I think that's --
A. -- response to 156 ?
Q. Yes. In response to a Data Request Number 156.

MR. MEHTA: Chai r Mtchell, the document, itself, is marked as confidential. It is, in fact, no longer vi ewed as confidential. It was originally marked as confidential because the information contai ned within the document was, sort of, bet ween earni ngs rel eases, but those -- the earni ngs rel eases have now been made, and so the financial information is no longer confidential. And so there needs to be -- there does not need to be any special handling with respect to this document or the testimny regarding the document.

CHAI R M TCHELL: Al I right. Thank you, Mr. Mehta. I would al so note, just the note at the top of the document that appears on each page indi cates that the response and the embedded information are no I onger considered confidential. So let's go ahead and mark this document, if you so choose, Mr. Mehta.

MR. MEHTA: Yes, Chai r Mtchell. We'll
mark it as DEC Juni s/ Maness Cross Exami nation Exhi bit 3.

CHAI R M TCHELL: Al I right. The document will be marked DEC Junis/Maness Cross Examination Exhi bit Number 3.
( DEC Juni s/ Maness Cross Exami nation
Exhi bit 3 marked for identification.)
Q. And as you noted, Mr. Maness, this document is DEC's response to a data request fromthe Public Staff, Data Request 156-2, that if you look on the second page, I guess, of the document, the request is listed there:
"Pl ease provide a total estimated cost, incl udi ng an estimated breakdown of the costs for CCR remedi ation for each site and for each impoundment pursuant to the settlement agreement entered into by and between DEC and the Department of Envi ronmental Qual ity."

## Did I read that correctly?

A. Yes. l'malittle bit confused because there's more than one page that's listed as being the response to 156-2. So I want to make sure l'mlooking at the right one. There's page 2 of the exhi bit, and then it says it again on page 5 . So I just want to
make sure l'min the right place.
Q. You could actually look at either one of them because I thi nk there was a suppl emental response. And the spreadsheets that begi $n$ at page 6 of the exhi bit are really the spreadsheets that were submitted in connection with the supplemental response.
A. All right. Thank you.
Q. Now, Mr. Maness, I don't knowif you're a fan of alternative history, you know, like what would have happened if the South won the Civil War or if the Nazis had one Wbrld War II and things of that nat ure, but we're going to engage in some alternative hi story, and we' re going to assume that the Commission did not reject your characterization of coal ash costs as expense. And, in fact, we're going to call them expense.

And if you would, Mr. Maness, take a look at -- I guess it's the seventh page of the -- of the exhi bit.
A. Yes, sir.
Q. And, of course, this exhi bit was submitted back in, looks like January or February, so the col umm for 2020 is a forecast number; do you see that?
A. Yes, sir.
Q. And it -- just rounding, it essentially says 174 million forecast for 2020, correct?
A. Yes, sir.
Q. And I want you to assume, Mr. Maness, that your friends, Mr. Garrett and Mr. Mbore, have been through these expenses with a fine-tooth conb and not even they can find anything wrong with them Are you with me?
A. I could assume that as a hypothetical. I will point out that this particular request was, I believe, submitted by Mr. Junis and maybe Mr. Lucas as well on the techni cal side, and I presume was used in conj unction with Garrett and Mbore's investigation. But, beyond that, I really can't make any firm concl usi ons about anyone' s opi ni ons regarding the accuracy of the numbers.
Q. Okay. And I'm not concerned right now about the accuracy of the numbers. I'mjust going to say let's assume that the Company actually expended, essentially, \$174 million in cal endar year 2020, and Mr. Garrett and Mr. Mbore have been through those costs and not even they have found anything wrong with a single dollar of those costs.
A. All right. As you say, those are forecasts.

But I will -- on that basis, I will accept your hypot hetical.
Q. Sure. So, Mr. Maness, the Company files a rate case on, let's say, April 1st of 2021, and its test year coal ash basin remedi ation expenses are approxi matel y $\$ 174$ million. And --
A. So --
Q. -- Mr. --
A. I'msorry.
Q. -- Mr. Mbore and Mr. Garrett have said to the Public Staff, those dollars are perfectly fine, there's nothing wrong with any one of them

Wbuld the Public Staff accept that those expenses should be brought into rates as part of the -as part of the rate case that is filed in April of 2021?
A. So, Mr. Mehta, this is where thi ngs get a little bit complex. For GAAP and FERC financial reporting purposes, before you consider the impact of the Commissi on's -- or this Commission's orders for regul at ory accounting and ratemæking, for GAAP and FERC purposes, that $\$ 174$ million for 2020 is not an expense. It is simply the cash flow for settling a portion of the ARO Iiability on the books. So characterize -- in
fact, l think the title says cash flow summary. It doesn't say expense summary.

So when you start out with ARO accounting without reflecting yet the impact of this Commission's orders, this would not be the expense for the year. The expense for the year would be a strai ght line depreciation amount of the ARO asset, which consists of an estimate of the present value of all of the expenditures that the Company is forecasting to have regarding the retirement of these coal ash basins. What happens then is that depreciation expense gets recorded as ARO depreci ation expense. When they actually spend the cash, that is si mply recorded -- and I amsimplifying here, but generally, it's recorded as a credit to cash, as we would call it, and a charge or reduction to the ARO Iiability.

Now, when you consi der the Commission's deferral orders, that switches the whol e thing around. What the Company does, as I understand it fromthe response to Data Request 159, is that that depreciation expense that we tal ked about just a minte ago is reversed on its regul atory accounting books for purposes of accounting and ratemaking for this jurisdiction, and is, in fact, recorded as a regul at ory
asset.
But that entire regul at ory asset is not proposed by the Company to be included in rate base at this time. What the Company does is they look at how much cash is actually spent during the year, and they move that amount fromthat initial regul atory asset account to a regul atory asset account that they want to put in rate base in this case and amortize over a certain number of years.

So the genesis of that regul at ory asset account is cash that has been spent. And then they want to take that cash that has been spent and amortize it over a certain number of years for recovery.
Q. I understand --
A. I don't knowif l need to start over because I know that was a long expl anation, but --
Q. I thi nk I understand, and, Mr. Maness, you may be perfectly right in terms of the coal ash costs that are being sought for recovery in this case. l'm tal king about --
A. If I could -- if l could just add -- l'm sorry, but add to the end of that answer is that, for regul at ory accounting purposes, therefore, when the Company amortizes this pursuant to the Commission's
orders, that is the regul at ory expense. So it starts out as a deferred expense fromthe utility's, l'Il say default ARO accounting books, and then as cash is spent, they convert part of that regul at ory expense, or that regul at ory asset, to a deferred expense that they then want to amortize over a certain number of years and include in rate base.
Q. Okay. And agai n , Mr. Maness, I understand that what you just described is how the Company is seeking recovery of coal ash costs that it has incurred in the period from l think, January 1, 2018, through January 31st of 2020 in this case. I'mtal king about next year's case.
A. Okay.
Q. In next year's case, they have actually spent \$174 million, and you say that those \$174 million are expenses. And why woul dn't, then, the Company be entitled to include in rates that $\$ 174$ million as a test year expense once Garrett and Mbore have told us that there's nothing wrong with any of those expenditures?
A. Well, since we're tal king about next year's expense, the Company could propose that. Hi storically, the Commission -- the Company and -- has proposed, and
the Commission has approved to pl ace those cash expenditures into a regul atory asset account and amortize themover a certain period of time. So I think it's clear that the Company could propose to do that.

CHAI R M TCHELL: All right. Mr. Maness, I'mgoing to interrupt you. I apol ogize. Someone is typing sort of furiously here, and they' re not on mute, and so it's creating a lot of --

COMM SSI ONER GRAY: I thi nk it was Mr. Marzo.

CHAI R M TCHELL: All right. Vell, whomever it is, please check your line and mute it. Thank you. All right. Mr. Maness, Mr. Mehta, I apol ogize. Pl ease proceed.

THE WTNESS: Did you want me to proceed with my answer, or does Mr. Mehta need to --

CHAI R M TCHELL: Let's start over just for purposes of the record and so everyone can follow al ong. Mr. Mehta, if you would, could you ask your question agai $n$.
Q. l'Il try to remember what it was. But essentially, Mr. Maness, the question -- the question was premised on -- we' re really tal king in this
hypothetical about not this year's rate case, or the case that we're currently in, but next year's rate case, in whi ch the Company has, in fact, expended \$174 million of test year expense, in your words, with respect to coal ash costs.

And my question, l think fairly simply, was why isn't the Company entitled under that circunstance, particularly when Mr. Garrett and Mr. Mbore have said there is not a dollar's worth wrong in that \$174 million? Why isn't the Company entitled to bring those $\$ 174 \mathrm{milli}$ on of test year expense into rates at the concl usi on of the -- of the rate case that we' ve hypothetically said would be filed April 1 of 2021?
A. So there are several levels of response to that. I thi nk, as I started my answer out, the Company could certainly propose to do that. And at least theoretically Commission could approve it. However, that would be at odds with what the Company has proposed to date to do with these expenditures, and so it would be a change in what the Commission has deci ded.

Now, the next thing you have to consi der is what would treating the expenditures in that way do to what the Public Staff has proposed, because it could
present and potentially, at least, in contemplation of 62-133(b) that deal s with rate -- that deals with what can be in rate base, it could complicate the Public Staff's assertion regarding equitable sharing. And so that might create some actions on the Public Staff's part that would be a little bit different.

Now, the other thing that would have to be consi dered -- and I have no idea of the answer to this question; it's certainly a legal matter -- is what does it say about the action that the Commission has taken in Domini on's recent rate case with regard to -- they don't use the termequitable sharing, but with regard to making a decision to excl ude the unamortized expenses for rate base for the purposes of setting just and reasonable rates. So that would, I thi nk, have to be considered as well.

And then the last thing, if what I am inferring would be you saying that the Company would propose this, is, if you were just going to incl ude that as a test year expense, is it, in fact, the reasonable ongoing level of expenses. Because, as you can see looking at this work paper, those expenses change over time. So would the $\$ 174$ million be the appropriate amount to incl ude on a normalized basis?

If you look at this worksheet, it looks like that might be a little low.

Wbuld the Commission, if they're simply going to set this as test year expenses, wouldit be within the -- what's permitted by 62-133, would it be permitted to base its expenses on a forecast. And so if it want ed to normalize expenses, you'd be looking at, well, for the next five or six years, we' ve got forecasted expenses over $\$ 200 \mathrm{million}$. I think the Public Staff would certainly look at that with great uncertainty as whether that forecast could be used to si mply set test year expenses without some accounting met hodol ogy to make sure that we' re not si mply setting rates based on a forecast; whi ch at least we' ve -- । would say 99 percent of the time said was not appropriate for ratemaking purposes.
Q. All right.
A. $\quad \mathrm{M}$ ght al so be in a separate situation where the expense might appear hi gh in comparison to what you might be forecasting for future years, and you'd have to consider, well, what do I do in that event ual ity? Do I simply say, well, that's too hi gh and some of this expense is not going to be allowed to be put into rates? Do I set up another type of regul at ory asset?

So there are just so many questions about
that. But l think fundamentally, to answer your fundamental question, the Company could propose it, and then the intervenors and the Cormission would have to figure out what to do with that proposal.
Q. All right. So, Mr. Maness, I understand that it's a very complicated -- complicated situation. If I understood your answer correctly -- and it was a long answer, and I was trying to write some notes.
A. I'msorry.
Q. That's fine. You indicated it might complicate the Public Staff's equitable sharing argument that, and I understand that.
A. It might.
Q. And you indi cate that it might implicate the Cormíssion's recent Dominion order, and I understand that.

But you're not saying, Mr. Maness, are you, that the Commission's Dominion order would necessarily govern the result in this case; this case would be deci ded, I assure, Mr. Maness, on the facts as the Cormission finds themin this case and the application of I aw to those facts, correct?
A. I agree. I guess the first thing is we were
tal king about future cases, so we would have to assume something about how this case is going to turn out. We' d have to assume something about how the appeal of the last case is going to turn out. How any appeal that might come about in this case is going to turn out. So it is entirely hypothetical.

I thi nk the one thing that you didn't mention with regard to the Commission that l didis, of course, the Commission would, and they certainly are -- have the di scretion to do this. They would be departing from the approach that they' ve taken in, at this point, at least four general rate cases, if l'm counting correctly, goi ng all the way back to the DENC rate case prior to the most recent one.
Q. All right. And that's what your point was with respect to the hi storical treatment actually that the Company proposed and the Commission approved in prior cases; did l capture that correctly?
A. Yes, sir.
Q. And the -- and what the Company proposed is -- is in what we' ve been calling, l think for the I ast few years, the Savoy letter, correct?
A. Well, I think it was first -- the Company first stated they were going to follow that practice in
the Savoy letter, but then they came back later and actually asked the Commission to approve that treat ment.
Q. Okay. And the Savoy letter -- I think if you I ook at DEC Cross Exhi bit 26, that is the Savoy Ietter, correct?
A. Hol d on one second, let me -- l got of $f$ my exhi bit page here. Let me get back to it.
(Witness peruses document.)
Fromlooking at the first page, that does appear to be what we termthe Savoy letter.

MR. MEHTA: And, Madam Chai r, I'd like
to go ahead and mark what was DEC Exhi bit 26 as DEC Juni s/ Maness Cross Examination Exhi bit 4.

CHAI R M TCHELL: Al I right. Mr. Mehta,
the document will be marked DEC Juni s/Maness Cross Examination Exhi bit Number 4.

MR. MEHTA: Thank you, Chai r Mtchell.
(DEC Juni s/Maness Cross Examination
Exhi bit 4 was marked for
identification.)
THE WTNESS: Mr. Mehta, could I ask you
a qui ck question?
Q. Sure.
A. I negl ected to write down the previ ous DEC Exhi bit 25 that was the 150 response, can you tell me, just for taking my own notes, what number cross exhi bit that is for this panel?
Q. Number 3.
A. All right. Thank you.
Q. So -- and, Mr. Maness, we don't have to spend a I ot of time with the Savoy letter. The Comi ssion spent a lot of time with the Savoy letter in the prior order.

But did you hear Mr. Young's testimony? It seems like a very long time ago, but it probably was only a few weeks.
A. I heard -- I heard parts of his testimony, so yes, in general, l did hear a lot of his testimony.
Q. And he, essentially, characterized the programthat DEC has been on, really since the Savoy letter, as one of spend, defer, and recover; do you recall himsaying something like that?
A. I don't di rectly recall that, but I certainly will accept it, because I agree that that is the programthat they have been on.
Q. And that is the programthat is actually laid out in the Savoy letter, correct?
A. Sometimes l get a little bit mixed up bet ween what's in the Savoy letter, what's in the Commission's order approving def er ral, which, essentially, l guess, for the most part affirmed what's in the Savoy letter, and then what the Commission approved in the 1142 and 1146 general rate cases. I thi nk that the approval of the ratemaking treatment really di dn't occur until those rate cases, but l could be wrong about that. But that's what we assumed would be what the Company would be doing based on the Savoy letter and the Commission's I ater approval in E-7, Sub 1110.
Q. Okay. Understood. And the -- and, obvi ously, what ever the Commission did in E-7, Sub 1110, whi ch was consol idated with E-7, Sub 1146, is a matter of record in the Commi ssion's order approving the def er ral and approving the recovery, correct?
A. Yes, sir.
Q. And the ot her thing you mentioned in that very Iong answer -- very Iong and very complete answer, I must say; thank you, Mr. Maness -- is that it's not necessarily true that $\$ 174$ million is representative of, sort of, normal coal ash spend, and so it's not clear whether that's the correct number to be used as
the hi storical test year number; did I get that nore or less correct?
A. Generally once -- if you get past all the other, sort of, obstacles and different hai r pin-curve turns that you might have to take in reaching that point is determining what would be representative on ongoing basis, you would get to the point that you would say, well, while it's historical, it might not be represent at i ve.
Q. Okay. And the Commission actually in the prior order deal m ith the notion that the test year expense might be hi storically accurate but not necessarily representative; did it not? And I'm looking particularly, Mr. Maness, at the bottom of page 322 of the Comission's order in the prior case, E-7, 1146, where the Cormission is dealing with the proposal made by the Company of a run rate.
A. That last paragraph, I can see the termrun rate there; is that where you're directing me?
Q. Yes. And let me just read it to you, and you can tell me if l read it correctly.
"With respect to CCR remedi ation costs to be incurred during the period rates approved in this case will be in effect, the Commission determines that the,
quote, run rate or the, quote, ongoing compl iance costs mechani smadvocated by DEC will not be approved. By requesting the creation of anO in addition to the run rate, DEC concedes that treating CCR expenditures as a recurring test year expense is inadequate."

So the Commission actually agreed with your -- the position you just stated with respect to the adequacy of treating CCR expenses in a gi ven year as representative of what those expenses would be, correct?
A. I agree. Now, and the Public Staff's opposition to the run rate in the Iast case was al so connected to complications it might present to our equitable sharing proposal.
Q. Yeah, understood. I'mcertai nly very cogni zant that the Public Staff is very fond of its equi $t$ able proposal.

MR. GRANTMYRE: This is Bill Grantmyre.
I don't believe Mke Maness finished his answer.
Q. Well, I apologize, Mr. Maness. Go right ahead and finish it.
A. As you know, Mr. Mehta, l'll never turn down an opportunity to el aborate. The -- as I said, that it was our assertion, our position was partly at least due
to a concern that it might complicate our equitable sharings proposal. But l'm not saying that that's my concl usi on that it does. I thi nk that would be a legal matter to see if there was a complication.

Now, I would al so say that a run rate would al so present challenging but not insur mount able accounting and ratemaki ng questions froma techni cal sense with doing equitable sharing or some sort of ot her reduction in revenue requirements similar to what the Commission has done in the Domini on case.
Q. All right. And, Mr. Maness, just to go back to the prior order.

After the Commission said that, in effect, DEC concedes that treating them as a recurring test year expense is inadequate, it goes on to say, quote, future annual costs, the evi dence shows, are predicted to vary substantially from year to year, correct?
A. Yes.
Q. And so the Cormi ssi on says that, instead of a run rate, quote, CCR remedi ation costs incurred by DEC during the period rates approved in this case will be in effect, shall be booked to an ARO that shall accrue carrying costs at the approved overall cost of capital approved in this case net of sum deductions, correct?
A. Yes.
Q. And those costs that DEC has incurred during the, quote, period rates approved in the prior case will be in effect, are the costs that are now bei ng sought for recovery, correct?
A. Can you -- l lost you there a little bit.
Q. All right. At the very top of page 323.
A. Yes, sir.
Q. So the costs that DEC incurred during the period rates approved in this case, quote, unquote, meaning the prior case. With me?
A. Yes, sir. Thank you.
Q. So those costs shall, according to the Commission, be booked to an ARO and shall accrue carrying costs at the wei ghted average cost of capital, correct?
A. Yes, sir.
Q. And then the order goes on to say the Cormission will address the appropriate amortization period in DEC's next general rate case, correct?
A. Yes.
Q. And the next general rate case is this case, correct?
A. Yes, sir.
Q. And the Commi ssi on goes on to say, quote, and unl ess future imprudence is established, will permit earning a full return on the unamortized bal ance.

That's what the Commission said in the prior case, correct?
A. That is what they said. Now, I'm not an attorney, but it sounds a little bit like they were trying to bi nd the Commissions to a certain decision in this case. So l guess just froma Iayperson's understanding of how thi ngs work here before the Cormission, I don't know that that actually is a fact.
Q. Well, it's a fact that they said what they sai d?
A. They said what they said; yes, sir.
Q. The Iegal implication of what they said is, of course, something that is a matter of law, correct?
A. Yes, sir. Could l poi nt out -- could I make a little tangential point with regard to --
Q. Mr. Maness, even if I said no, you can't, you woul d, so why don't you go ahead.
A. There's something in some of the terminol ogy that I think all of us have used fromtime to time up here that disturbs me a little bit, and that is to use the termARO or asset retirement obligation for what
the Commi ssi on is doing.
Now, the Commi ssi on is certainly free to call what it is doing what it thinks is appropriate. What all al ways bothers me a little bit is l think it can be a little bit conf using because ARO is a very GAAP-specific, I guess a termof art, as you would say. It typi cally is taken to refer to how the FASB says these sort of costs, these legal -- I egally requi red costs of removal should be accounted for. And so it al ways, I think, can be a little bit conf using to use that terminol ogy for regul at ory treat ment.

And so I guess I would just -- I would like it if we sort of stayed away from that in the future, but I totally understand, you know, that the Commi ssi on is certai nly free to call its defer -- as you said, spend, def er, and amortize, or recover, they can call it what they wish to call it.
Q. All right. Just like M. Junis can call an exceedance a viol ation or a viol ation an exceedance or whatever the termis; is that right?
A. No.
Q. All right. l'll turn back to you, Mr. Junis.

Now, on page 37 of your testimony, you indi cate that you are incorporating by reference your
testimny and exhi bits fromthe last rate case, correct?
A. (Charles Junis) That's correct.
Q. And you indi cate that the testimony and the exhi bits are vol umin nous, whi ch they sure are.
A. That's correct.
Q. And you indicate that, basically, the principal topic is the history of known environmental i mpacts associ ated with coal ash, correct?
A. That's correct.
Q. And you woul dn't actually hold yourself out as an expert on that topic, would you?
A. I mean, l'm provi ding expert testimony. I dove very far into this. l've worked on now the past two Duke cases, the Domini on case, and then these two Duke cases, and I would say, you know, in my DEC testimony was the first real deep dive into what was known at the time and trying to put on that hat of that 1980s or 1970s Duke engi neer deci si on- maker of what should they have known and what shoul d -- and what they should have done based on that know edge.
Q. All right. I understand. I mean, you've done a whole lot of reading, and I appreciate that you have done a whole lot of reading, correct?
A. A whole lot of reading that al so has the context of my engi neering experience and education. And so I think, just as good as anyone el se, I could provi de substantial insights regarding this subject matter.
Q. Tell me, Mr. Junis, what were you doing in the 1980s?
A. That's a good question. For a very brief portion of the 1980s, I was alive, so.
Q. Well, I guess I was not expecting that answer, but thank you. That's a very candid answer. When were you born?
A. I was born in 1989.
Q. And in the reading that you did, Mr. -- all ki ddi $n g$ asi de, the readi ng that you di $d$ incl uded, as you' ve testified in your prefiled testimn you cite to the 1981 EPRI manual, whi ch is Joint Exhi bit 7?
A. Yes, sir.
Q. And the 1982 EPRI manual, which is Joint Exhi bit 8?
A. Yes, sir.
Q. And we went over those with Mr. Quarles at some length the other day. It nay have been Thursday or Friday, I don't remenber exactly whi ch, but Iast
week some time, correct?
A. Yes. And I was listening to that testimony and woul dn' t mind the opportunity to provi de some additional context to those documents al so.
Q. Okay. And you al so mentioned the 1988 EPA report to Congress, and we looked at that one with both Mr. Hart and Mr. Quarles Iast week, correct?
A. Yes, sir.
Q. And you concl ude first -- and this is on page 39 of your testimny, around line 17, that these studi es indi cate that the el ectric generating industry knew or shoul d have known that unl ined ash ponds, quote, posed a serious risk to the quality of surroundi ng groundwater and surface water, correct?
A. That's correct.
Q. And what do you mean by a serious risk?
A. Well, conveni ently, DEC sent us a data request, and we sent them back a definition. And I'd just like to read that to make sure there's no conf usi on.
"The Public Staff understands serious to mean having i mportant or dangerous possible consequences and risk as the possibility of Ioss or injury."

So in the context of my testimony, serious
risk means that unl ined surface impoundments presented a strong possi bility of degrading the quality of surrounding groundwater and surface water.
Q. Well, when you said "having important or dangerous," what do you mean by dangerous?
A. So dangerous would be the potential health effects of exceeding these standards. Many of the 2 L standards are based on drinki ng water standards, because that is the assumed best use of these groundwaters, according to the 2 L standard.
Q. Okay. All right. So you concl ude further -and this is on page 42 of your testimony, and lill paraphrase. You just tell me if l'mbeing fair. That DEC, being a large player in the industry, either knew or should have known about these EPA and EPRI documents and should have improved and modernized its practices in the 1980s in accordance with that available know edge.

Did I essentially capt ure what you're trying to say there?
A. Yes, sir. And I would just add that, you know, gi ven its prominence, DEC and DEP and their hi storic compani es basi cally hel ped set industry standard. So it's kind of a cyclical defense of, well,
we were using the industry standard while setting the industry standard. And in a number of these documents, it tal ks about, in these late' 70 s , early ' 80 s time frame, a recognition of the potential risks tied to unl ined impoundments and that there was a national trend moving away from wet to dry handling.
Q. Okay. And -- but DEC and DEP are not the onl y players in the industry, correct, M. Juni s?
A. Certainly not.
Q. And there were certainly other utilities in the industry that were doing essentially exactly the same thing that DEC and DEP were doing back in the 1980s; were they not?
A. Yes. However, if you look at, like, the ' 88 report to Congress, it breaks down by EPA region. And regi on 4, whi ch covers a si gni ficant chunk of Duke Energy's portfolio, was significantly skewed towards wet handling as opposed to other EPA regi ons.
Q. And that was because of the availability of water resources to support wet handling; is it not, Mr. Junis?
A. That's certainly a component, but l would not say that's the I one determination.
Q. Mr. Junis, I guess maybe to use Mr. Hart's
word, you al so bel i eve that DEC shoul d have been more proactive with the know edge that it possessed back in the 1980s, correct?
A. I would say -- l'msorry, I got a little feedback here. But yes, my onl y ki nd of recommendation of what they should have done differently is that they should have performed groundwater monitoring and comprehensi ve groundwater monitoring through an iterative process. Because you cannot make any other deci sions without that information. That's kind of the starting point that is referred to in the ' 81 manual, the ' 82 EPRI manual, it's di scussed about the deficiency of groundwater data available to the 1988 report to Congress.

This is a repeated issue. And that's -- I know you went into this with Mr. Hart, but the studi es at Allen, my main issue with the outcome fromthat is Duke stopped. They got done with those studi es, and they stopped monitoring the groundwater there, as opposed to seeing the red flags of certain exceedances and then maki ng -- drawing those concl usi ons and extrapol ating themto all their other sites.

Instead of recogni zing, okay, for a rel ativel y low cost, we can monitor and know for a fact
is there or isn't there degradation of the groundwater. And they chose not to. So that's my bi ggest problem with the hi storic handling of coal ash.
Q. So, Mr. Junis, let me make sure I understand.

Is it your opi ni on that DEC should have cl osed ash basi ns and shifted to dry handling of coal ash, bottom coal ash as well as fly coal ash, sometime in the decade of the 1980s?
A. Agai n, you cannot make that deci si on wi thout the underlying inf ormation. You needed groundwater monitoring and comprehensive groundwater monitoring to make that determination of whet her $t$ here was or wasn't i mpacts that necessitated that change, or the possibility of other corrective actions tolimithat spread.
Q. So -- but, Mr. Junis, if you were actually I ooki ng at it in 20/20 hi ndsi ght, you would agree that, had they done what you called comprehensi ve groundwater monitoring, they would have deci ded that it would be prudent to switch to dry ash handling as opposed to wet ash handling, correct?
A. Well, you never want to get into a position of appl ying hi ndsi ght. I mean, that's a key critique of this anal ysis, is you're supposed to provide an
alternative based on what was known and available at the time. And so trying to go back, you needed to do that assessment, that site-specific assessment, to then determine the right -- the course of action. And that's where you could have utilized the 1982 EPRI manual on upgrading these facilities, potentially. And that it was offering, you know, maybe a slurry wall was the appropriate action, or extraction wells were the appropriate action to hel p contain this potential seepage and groundwater contamination.

Or, you know, a further choi ce, if those di dn't work, or you decided it was significant enough, maybe you do shift to dry ash handling, but there's certai nl y a trend towards that.
Q. And so, Mr. Junis, if the decision is made to switch to dry ash handling, that would invol ve the closure of an ash basin, correct?
A. That's correct.
Q. And how woul d -- Mr. Junis, how would that occur back in the 1980s?
A. It depends on how the Company proposed to do it.
Q. Well, if you look, Mr. Juni s, at -- we'll I ook at Joint Exhi bit 7.
A. All right.
Q. Page 3-3, which if you're looking at it on a PDF, is page 102.
A. I'mthere.
Q. The first full paragraph on the page i ndi cates, next-to-last sentence:
"Site cl osure normally invol ves the placement of a soil cover over the pond surface and the di version of surface water fromthe site," correct?
A. That is what it says.
Q. And if you look at the 1988 report to Congress, Mr. Junis, and the page reference is $4-12$.
A. All right. Give me one second while I get that open. Do you know what page of the PDF that is?
Q. Yeah. I'mlooking for it. l'll get it to you in just a second. Page 151 of the PDF. It's al so -- if you're looking at the joint exhi bit, itself, it's DOCX 6516. Sorry, I'mon the wrong page. You need to go to page 148 of the PDF, DOCX 6513.
A. Okay. One second. All right.
Q. And you see here the EPA drew us a pi cture of what closed disposal pond with waste remai ni ng looks like. It's the lower of the three pictures, correct?
A. Yes, sir. So that is one method of closure.

If this cl osure happened back in the late '70s, or early ' 80s, or anywhere hi storically, there would have been less ash in those impoundments than there is today.
Q. But they would still have -- if they closed themin accordance with how the EPRI manual said is normal and the EPA has said is normal, they would have cl osed or could have closed them with the ash there covered by soil, covered by a veget ative covering on top of the soil, correct?
A. Correct. And that would el iminate that hydraulic head. You're still going to -- if it's just a soil cover, obvi ously, any preci pitation is going to soak in and create seepage that could mobilize those contaminants. But I would say that this, while typical, is still one of the options. So, for example, at Allen, prior to the study, there was ash that was dredged from one area and moved to another. So you could have closed that impoundment, dewatered it, and then moved the contents of that unl ined impoundment into the new lined I andfill for dry ash handling.
Q. And, Mr. Juni s, the -- what's depi cted at the I ower, the lowest picture, the third pi cture on the EPA report to Congress, page 4-12, is, in fact, what
happened with respect to the inactive basin at the WS. Lee site, correct?
A. You said WS. Lee? I mean, we were tal ki ng about Allen, but subject to check, that's what happened at WS. Lee.
Q. And for that matter, it's what happened at the H.F. Lee site for Duke Energy Progress, correct? Agai n, subj ect to check.
A. Yes.
Q. And today, as a result of the DEQ s orders, both inactive basins are being excavated, correct?
A. Yes, sir. But that's where l do want to emphasize what I said before, that that quantity in those retired ponds is less if you had -- you had retired themearlier instead of meeting the capacity. If you had recognized, okay, there is a risk and there is groundwater degradation. If we stop using this, that quantity could have been si gnificantly less.
Q. Mr. Junis, you're speaking of all this from the standpoint of a utility engineer, correct? Not a hydrogeol ogi st, whi ch you're not, correct?
A. That's correct.
Q. Okay. I just want to make sure I understand where you're coming fromin your testimny. And you
mentioned the Iandfill at Allen. Today, Mr. Junis, the I andfill at Allen is being excavated in accordance with the settlement agreement bet ween the Company and the DEQ correct?
A. Can you refer to that, because I was not referring to the Allen Iandfill, I was referring to -that i mpoundment area was broken down into areas A, B, and $C$, and ash was moved or dredged fromarea B into A prior to the use of area C.
Q. Well, all of areas A, B, and C are being excavated today, or will be excavated in accordance with the origi nally dictates of the DEQ and now the settlement between the DEQ and DEC and DEP and the envi ronmental groups, correct?
A. Yes, sir.
Q. And back then in the 1980s, Mr. Junis, the DEQ di d not actually have any rules or regul ations regarding how to cl ose an ash basin, did it?
A. That is correct. I will say, though, that many of these documents talk about the authority to make sure that there was safe practices. And so with the existence of 2 L , with the exi stence of the Cl ean Water Act, with the exi stence -- at least begi nni ng of RCRA, even though they weren't included for a
portion -- a period of time, there were laws in place to allow the regul at or to make sure that this was a safe practice, and a prohi bition on the degradation of groundwater whi ch the Company had a duty to adhere to.
Q. And, in fact, M. Junis, isn't it true that even as Iate at 2013, the DEQ the agency entrusted with the enforcement of the groundwater standards, had not, as late as that date, come to a concl usion on how to close an ash basin, had they?
A. That's correct that they did not provide strict gui delines or instructions of how you were supposed to do it, but they still had those laws to have the authority to make sure that the current practice was appropriate.
Q. And, Mr. Junis, if you'd just look at DEC Exhi bit 8, Cross Exhi bit 8. Have you got that in front of you?
A. Yes, I do.

MR. MEHTA: And, Chai M Mtchell, what
Cross Exhi bit 8 is, is an emal chain from March and April of 2013 with attachments. And if we could mark that as DEC Juni s/Maness Cross

Examination Exhi bit Number 5, that woul d be great.
CHAI R M TCHELL: Al I right. Mr. Mehta,
the document will be marked DEC Junis/Maness Cross Examination Exhi bit Number 5.
(DEC J uni s/ Maness Cross Exami nation Exhi bit Number 5 was marked for identification.)
Q. And, Mr. Juni s, I ooking at Cross Exami nation Exhi bit Number 5, again, it's an email chai n, so you start at the bottom and work up, correct?
A. Typi cally, yes.
Q. And going fromthe bottomto top, we first have an email from Debra Watts, who is at DEQ, correct?
A. Yes.
Q. And she' s sending it to Allen Stowe, who is with Duke Energy, correct?
A. Yes, sir.
Q. And she states in the first sentence of her email that she's encl osing ash pond cl osure gui delines that DEQ staff, particularly the aquifer protection section, has devel oped over the precedi ng year, correct?
A. Yes, sir.
Q. And she goes on to state that much of thei $r$ draft gui delines were based on what was previ ously di scussed with DEQ regarding Weatherspoon cl osure,

## correct?

A. Yes, sir.
Q. And Weatherspoon is one of, at the time, DEP Progress' retired coal-fired plants, correct?
A. Yes, sir.
Q. So sometime back in 2012, Duke Energy had engaged in di scussi ons -- at least in 2012, engaged in di scussions with DEQ with regard to cl osure of Weat her spoon, correct?
A. Yes, sir.
Q. And Mb. Watts states further that she would like Duke Energy's feedback on thei $r$ draft guidelines, correct?
A. Yes.
Q. And, in fact, the email at the top is Mr. Stowe's response saying, "I have attached our feedback," correct?
A. That's correct.
Q. And Mb. Watts al so says that, after she's recei ved the feedback from DEC and DEP, she's going to solicit feedback fromthe environmental groups, correct?
A. What page are you on at this point? I'm sorry.
Q. Still -- I guess it's still her email, so it's the bottom of the first page, and it's the second full paragraph.
A. (Witness peruses document.)

Okay. I see that, yes.
Q. And, now, when you look at the feedback, and, unfortunatel y, when you copy these as a PDF, the -- you know, all of the interlineations that you get in a redl ine sort of disappear, but if you just go to page 3 of 4 of the draft gui del ines, which 1 guess is the fifth page of the PDF.
A. I'mthere.
Q. Let's actually go up, page 2 of 4 , so the fourth page of the PDF.
A. Okay.
Q. And the -- at least the draft that was presented back to the DEQ presents three closure options, correct? Cl ose in place, clean, and hybrid?
A. Yes, sir.
Q. In two of those options, the closure in place and the hybrid, invol ve leaving ash in the pond, correct?
A. (W'tness peruses document.)

Yeah. So there's actually four options
listed. There's cl osure in place, clean closure, hybrid cl osure, and then any ot her cl osure methods as approved by the aquifer protection section chi ef that must be denonstrated to be effective at protecting water quality.
Q. But the three that are on page 3 of 4, two of them invol ve I eaving ash in the basins, correct?
A. Correct.
Q. It doesn't take a rocket scientist to surmise, Mr. Junis, that the environmental groups would not agree to that, would they?
A. I'm not going to speculate for the envi ronment al groups, but I think everyone' s concern, incl udi ng the regul at or and hopef ully the Company, would be that that would be safe closure. That there is direct evi dence, both scientific and engi neering, that shows that that can be protective of the envi ronment.
Q. Well, the position of the Sierra Club in Duke Energy Progress and Duke Energy Carolinas' Iast rate cases was leaving ash in the basins would not be protective of the envi ronment, correct?
A. That is my understandi ng, yes.
Q. And it certainly was their position in the

Office of Administrative Hearing challenge by both DEC and DEP to the DEQ s order requiring ful excavation of all of the ash basins, correct?
A. Yes. Based on $\mathrm{m} y$ understanding, I would agree.
Q. So let's see, Mr. Junis, l guess we're in the spring of 2013, so not quite a year before the Dan Ri ver, and a little over a year before the passage of CAMA, correct?
A. Will you repeat that? I'msorry, I lost you there.
Q. This email chain is the spring of 2013, right?
A. Yes.
Q. So not quite a year before the Dan River incident, and a little over a year before passage of the CAMA legislation, correct?
A. That's correct.
Q. And at that point, DEQ not onl y had no finalized set of rules regarding basin closure, but al so no new real prospect of achi evi ng consensus regarding finalized rules; would you agree with that?
A. I mean, I don't necessarily want to draw a concl usi on fromthis lone set of documents. Obvi ously,
that's docked for protection, section, but there are multiple di visions within the Department of

Envi ronmental Quality that would be of interest or concerned about pond closure and the construction of new storage units.
Q. But certainly the aquifer protection section was in that position, correct, Mr. Junis?
A. Yes.
Q. Mr. Junis, is it any wonder that, in enacting CAMA, the General Assentbly undertook to tell DEQ preci sel y how DEQ should supervi se and i mpl ement the closure and specify the time frame for closure of what the General Assentbly deemed to be hi gh- priority sites?
A. Can you repeat that agai $n$ ? I'm not sure I caught what the question is.
Q. My question, Mr. Junis, is, is it any wonder that, in enacting CAMA, the General Assentbly undertook to tell DEQ preci sely how DEQ should supervi se and i mpl ement basin closure, and specified the time frame for closure of what the General Assembly deemed to be hi gh- priority sites?
A. Yes. The high-priority sites were determined to be excavation within a rel ativel $y$ short period of time.
Q. That wasn't my question, Mr. Junis.

My question was, is it any wonder that the l egi slat are tol d the DEQ how to do it in CAMA?
A. To make sure I understand what you're asking of re, you're saying, because of this document, and that they had not determined exactly how cl osure should happen, that then that is why the legi sl at ure predetermined it for thei $r$ hi gh- priority sites?
Q. Well, l guess my question is, this is a conversation that had been going on for a long time, correct? That is, how to close the basin had been going on for a long time?
A. Yes.
Q. And there was no clarity about it back in the 1980s, correct, fromthe DEQ?
A. That's correct.
Q. And there was no clarity about it 30-pl us years later in 2013 either, was there?
A. While there was no strict gui dance of how to do it, there were regul ations in place that had to be adhered to. So it kind of -- the benchmark of success or the goals to be accomplished were prescribed by Iaw. That you were not to degrade the groundwater or surface water. And so that would probably be the gui ding
princi pl es when trying to determine proper closure. And, obvi ously, the Company did cl ose some i mpoundments during that period of time.
Q. Well, whi ch period of time are you tal king about, Mr. Juni s?
A. Well, you said the ' 80 s and ' 90 s, and obvi ously some of these i moundments were at least made i nactive or a surface cover put on.
Q. Okay. You're tal king the WS. Lee- and H. F. Lee-type cl osures, correct?
A. Yes, sir.
Q. Okay. I think it was a rhetorical question, and we could move on, Mr. Junis.
A. All right. I apol ogize for not understanding there.
Q. That's perfectly fine. Mr.Junis, let's go back to the 1980s. And I real ize that you were not born for most of it. But let's say your proactive utility deci ded to go ahead and close the basins, or deci ded to retrofit the ash ponds, something of -- some i mpact like that, okay? You with me?
A. I underst and.
Q. And actually, on the subject of retrofitting and -- the ash ponds to line them Mr. Junis, you know,
do you not, that the Sutton -- in 1984, the Sutton plant built a new ash pond, correct?
A. Yes, that sounds correct.
Q. And the new ash pond was lined with a clay liner, correct?
A. That sounds familiar. Maybe like a 1-foot cl ay I iner.
Q. And whatever the thi ckness of the Iiner was, it was proposed and done in conjunction with the DEQ at the time, correct?
A. Yes. And I'mtrying to recall. Obviously, that's a DEP site, but I recall there was even some interaction with the Corps of Engi neers on that site.
Q. So there were lots of regul at ors invol ved in the sel ection of the clay liner for that site, correct?
A. I woul dn't say every party necessarily si gned of $f$ on that selection, but that is what resulted.
Q. Well, who di dn't sign off? Who fromthe regul at ory commity didn't sign of $f$ ?
A. Again, this is a DEP site not subject to this case, but my recollection is that the Corps of Engi neers expressed some concerns, but, obvi ously, it was the duty of the North Carol ina DEQ to have final say in that.
Q. And it had final say, and it si gned off, right?
A. That's correct.
Q. And 30 years Iater, Mr. Junis, DEP is required to excavate the Sutton ponds, all of them incl uding the one that had the clay liner, correct?
A. That is correct.
Q. And, Mr. Junis, agai n, putting yourself back in the 1980s, you know, cl osing ponds, converting to dry ash, building landfills, installing groundwater monitoring systems, all of that thing, those thi ngs cost money, correct?
A. Those certainly do cost money.
Q. And if your proactive utility back in the 1980s had incurred those costs and then went into a rate case to try to recover those costs, it's the Public Staff that would be the guardian of the wallets of the using and consuming public, correct?
A. That's correct. And the Cormission is al so trying to bal ance and protect customers and the Company.
Q. And the first thing that the Public Staff would have asked that proactive utility is, "Have you investigated your own ponds," correct?
A. I mean, I certainly think that that would be a question asked if I was in that position at that time. We would certainly want to know, is this a reasonable and prudent busi ness decision necessitated by sci ence and engi neering evi dence. You know, what is the basis for that decision?
Q. And the answer, Mr. Juni s, woul d have been, why, yes, we, DEC, have investigated our own ponds. And not only us, but a contractor contracted for by the EPA, and a contractor contracted for by EPRI have i nvestigated at least the Allen ponds, correct?
A. All right. So are we still tal king a hypothetical situation or now are we tal king specifically about Allen?
Q. Well, what l'masking you is, if the Public Staff had asked the question, "Have you investi gated your ponds," the answer woul d be, "Yes, we have, Duke Energy Carolinas, pl us the EPA through

Arthur D. Little, pl us EPRI," correct?
A. They investigated the ponds at Allen, not every single Duke site.
Q. And the ponds at Allen were assumed, at the time, to be representative of other Duke sites; were they not?
A. That was a key assumption in the concl usions made by those reports, and I think that was a faulty assumption, especially gi ven how so many documents referred to as site specific anal ysis. Even the Duke witnesses in this case, Mr. Wells, ME. Willians, and ME. Bednarcik have all referred to, to my know edge, the site specific, the necessity of site-specific anal ysis to determine the right course of action.

I will al so add that the Allen study, if you look at the anal ytical methods used for that groundwater anal ysis, those were prefiltered samples. That's actually a practice that is prohi bited by the CCR rule and was prohi bited in the state prior to that, because you are then quantifying -- and the Commission is very familiar with this from di scussions in the Aqua rate cases. You get into sol uble and insol uble, or what is di ssol ved and suspended. And so they were prefiltering out those insol uble or suspended constituents, which would underquantify the tot al concentration level of those constituents.

So while there were exceedances that were identified in the Allen studies, those could have been hi gher and for more constituents had the sampling been done differently. And in addition, if l may.
Q. No, go ahead. I thought you were finished.
A. That's all right. The leachate testing, that is a methodology to estimate. And it is very clear in the Allen study that they say there has not been a steady state reached for the actual leachate. And so the study states that, while the current conditions are approxi mately 80 percent groundwater and 20 percent leachate, they expected that to conservatively flip to 80 percent leachate, 20 percent groundwater. And so that means that they expected -- and they state in the report, that they expected the concentrations to go up. And fromthat, Duke stopped I ooking. They stopped monitoring groundwater despite that concl usi on within the data.

So -- and I just want to make sure that that's clear, this breakdown bet ween 80/20 and then flip-flopping. I want you to think about you have a cup, and you put 20 -- or 80 percent water, it's al most close to full, and then you power 20 percent coffee. So it's going to tint alittle bit, but it would be closer to water than coffee. Now, in the reverse, if it's 80 percent coffee and then you add 20 percent of water, that's still going to look a lot like coffee. It might have lightened it up a little bit, but that
would be characteristic of coffee. And that's the switch here between the amount of leachate, 20 percent, to then the expected being 80 percent leachate that is seeping into the groundwater at the Allen site. And what did Duke do in 1985 after that study? They did not monitor at that site for multiple decades.
Q. All right. So, Mr. Junis, as -- what you've just told me, essentially, is the -- looking at that study fromthe vant age point of 2020, in whi ch you are, you have all kinds of criticisns regarding that study, and I assume the EPA Arthur D. Little study, and I assume the EPRI study that was done by a different envi ronmental contractor; is that correct?
A. So that was the cul mination. The 1985 report addressed that. And while the sampling, the anal ytical methods, is some hi ndsi ght, but it was recogni zed in the past, because the Feder al Regi ster in 1976 clearly del ineates between total and di ssol ved. And that's this difference of what is mobilized or sol uble and i nsol uble. So that is not completely guilty of hi ndsi ght anal ysis.

And then you could have certai nl y , froma 1985 eye, reading that report, made that concl usi on about the leachate. That is clear as day. There is no

20/ 20 hi ndsi ght in that anal ysi s.
Q. And so, Mr. Junis, again, going back to the Public Staff being the guardian of the wallets, the Public Staff would have al so asked DEC at that time, what does the EPA think about all this, correct?
A. Yes. And I would say that the EPA was still I ooking at it. The difficulty for the EPA -- and Mb. Willians has some great experience and insights into that -- is that they were trying to create a regul at ory construct that fit the entire nation. And the ' 88 report makes it very clear that there is varying practices of how to store or dispose of coal ash. And that's a clear distinction.

I would say a landfill is more indicative of di sposal, while a wet impoundment is more storage, because that -- there was a lot of actions necessary to consi der kind of the final closure of those i mpoundments.
Q. And, Mr. Junis, when we Iook at what the EPA concl uded in its years-long study of coal ash in the 1988 report, it concl uded, did it not, that the current waste management practices were adequate, correct?
A. Can you point me to where it says that?
Q. If you look at page 7-11, l'II try to get you
the PDF page in just a moment.
A. Appreci ate that.

CHAI R M TCHELL: Mr. Mehta, just for purposes of the record, whi ch document are you I ooking at right now?

MR. MEHTA: J oi nt Exhi bit 13,
Chai r Mtchell.
CHAI R M TCHELL: Al l right. Thank you.
(Pause.)
THE WTNESS: So I bel ieve that is DOCX 6720.
Q. I believe that is correct. You're right.
A. Okay.
Q. And doesn't it say there:
"The EPA reaches a concl usi on that current waste management practices are adequate to protect the envi ronnent?
A. Yes, sir. And I incl uded all three of these concl usions in my Sub 1146 testimony that I do reference or incorporate by reference. I would add, though, that that is based on the inf ormation they had. And one of the key pieces in this document is how little groundwater monitoring was occurring at the sites they were surveyed. I believe it was about a
quarter of the impoundments and landfills -- this is not just specific to i mpoundments -- had groundwater monitoring. That is deficient. And the EPA recognized that, and that's why, you know, they conti nue to study this issue.

And it's interesting, thi s document says we' ll i ssue a deter mination in six mont hs; that determination di dn't come out until 1993.
Q. And they di d conti nue to study thi s i ssue, di $d n$ ' t they, Mr. Juni s?
A. Yes, sir.
Q. And they continued to study it up until 2015 when they care out with a rule on how utilities are supposed to operate, correct?
A. Yes, sir. And even so, it's even conti nuing to be modified, because I thi nk the EPA was striving for better. And that's one of the most concerning parts of Mb. Bednarcik's testimony, I believe -- was that last week? It's been so long. She stated very authoritativel $y$ that, based on revi ewing all of this hi storic documentation, that if she was in a position to deci de, she would have done nothing different in the management of coal ash over that period. I have great concerns about a scientist or engi neer looking back
over decades of time and not finding one thing that could have been done better or differently.

I can say in my testimony l could go back, that was filed this year, there is al ways roomfor i mprovement. And that's pretty scary to concl ude that nothing would have been done differently.
Q. Well, Mr. Junis, I'mvery gratified to hear that the Public Staff has this attitude towards a proactive utility.

Wbuld you accept, Mr. Junis, that climate change presents a serious risk to our environment? A. I think we're getting --

MS. LUHR: Obj ection. Chai r M tchel I, that goes beyond the scope of Mr . Juni s' testimony.

MR. MEHTA: Chai r Mtchell, I have
listened time, and time, and time again to cross examination that is, quote, wi de open in North Carolina, and I believe that any question is not beyond the scope of cross examination in North Carolina.

CHAI R M TCHELL: Well, I don't know if I necessarily agree with you, Mr. Mehta, about that, but I will overrule the objection and I will allow it to proceed. But first, we're going to take a
break. We will go off the record. We will come back on the record at 11:00. Thank you.
(At this time, a recess was taken from
10: 46 a. m to 11: 00 a.m)
CHAI R M TCHELL: All right. Let's go back on the record, please. Mr. Mehta, you may proceed.

MR. MEHTA: Thank you, Chai r Mtchell.
MS. DOWWEY: Chair Mtchell, I'msorry. This is Di anna Downey, if I might?

CHAI R M TCHELL: All right. Mb. Downey, you may proceed.

MG. DOWWEY: We had two pending motions to excuse Mr. Metz and Mr. Thomas, and want ed to know if there was an update on those.

CHAI R M TCHELL: Yes. Mb. Downey, we have been working to get an order out, and to the extent that it has not yet been issued, Public Staff witnesses Thomas and Metz have been excused. ME. Downey, you are on mute.

MS. DOWWEY: In the light of that, Chair Mtchell, would now be the appropriate time to move their testimny into evi dence, or do you want me to wait?

CHAI R M TCHELL: You may proceed and move their testimony at this time.

MS. DOWWEY: Than you, Chair Mtchell.
I would move that the second supplement al testimny of Dustin R. Metz filed Septenber 8 --

CHAI R M TCHELL: Actually, I'mgoing to inter rupt you, MG. Downey. Just thi nki ng this through, let's hold your motion until the concl usion of the current panel, and then after we' ve moved in any evi dence with respect to the panel, then we can get to your motions for the Public Staff witnesses Metz and Thomas. So please hel $p$ me remenber that when we get to that point in time.

ME. DOWNEY: Will do. Thank you.
CHAI R M TCHELL: Al I right. Mr. Mehta, with you, please.

MR. MEHTA: Thank you, Chai r Mtchell.
Q. So, Mr. Junis, when we were -- just before we broke for the morning break, I asked you if Public Staff accepts that climate change presents a, quote, serious risk to our envi ronment?
A. And I would respond to that that the Public Staff hasn't taken a position on climate change, and we
would defer to the expertise of the environment al regul ator. And our role is that we seek the least-cost method of compliance with envi ronmental regul ations typically.
Q. And you would have sought the least-cost method of dealing with coal ash back in the 1980s, woul dn' $t$ you have?
A. Least-cost compl iance with the envi ronmental regul ations is how that was termed.
Q. Okay. And the compl i ance with envi ronment al regul ations is in the purview of the DEQ, correct?
A. That's correct. But, obvi ously, that speaks to the material evi dence. When a utility comes in for recovery of thei $r$ expenditures, that the environment al aspect would be part of the considerations of the Cormi ssi on.
Q. So, Mr. Junis, do you, personally, believe that climate change presents a serious risk to our envi ronment?

MS. LUHR: Obj ection agai n,
Chai r Mtchell. This goes beyond the scope of Mr. Junis' testimony.

MR. MEHTA: Chai $r$ M tchell, agai $n$, $I$
mean, without going to the extreme, cross
examination in North Carolina is not confined necessarily to the scope of direct -- of the direct testimony.

CHAI R M TCHELL: Al I right. I'mgoing to overrule the objection, and I'mgoing to allow Mr. Junis to answer the question.

THE WTNESS: Al I right. Mr. Mehta, do you mind repeating the question?
Q. Do you personally believe that climate change presents a serious risk to our environment?
A. And, Mr. Mehta, how do you define "serious risk."
Q. The same way you do, Mr. Junis.
A. All right. And when you refer to climate change, you're -- that's a pretty broad term in terns of the potential impacts of it; is that correct?
Q. Well, how do you define climate change?
A. I would say that's -- I would determine -- or $m y$ definition would be fairly broad of climate change, and, personally, l do believe that it poses a serious risk.
Q. And one way to address that serious risk is to decarbonize, correct, the generation of energy?
A. That is one method; yes, sir.
Q. So why, Mr. Juni s, does the Public Staff oppose the increased depreciation expense associated with early retirement of DEC's remaining coal plants in this case?
A. I would just say that that is not in my testimny. You would have to refer to another Public St aff witness regar ding that issue.
A. (M chael C. Maness) May I respond, in part, to Mr. Mehta's question?
Q. Well, Mr. Maness, you would do it whether I sai d yes or no, so go ahead.
A. No, I'masking permission of the Commission and you, Mr. Mehta.
Q. Go ahead. We're not into restricting the record in these proceeds, Mr. Maness. Pl ease go ahead.
A. In the DEC case, that is an accounting issue being testified to by Public Staff witness Boswell. In the DEP case, it's a little bit different, it's primarily an issue that's being addressed by our energy di vi si on empl oyees. So I just want ed to make that clear on the record.
Q. Sure. But, Mr. Maness and Mr. Junis, it is an issue -- it is a proposition that the Company has made, early retirement of the remai ni ng coal-fired
plants, that the Public Staff opposes, correct?
A. The public-- in the DEC case, the Public Staff is opposed to imposing on ratepayers in the very next few years the entire undepreciated cost of the plants. It's not an argument about whether or not the plants should be retired.
Q. But it's an argument about who should pay for them and when, correct?
A. It's an argument that, obvi ously, we cannot go back and charge past ratepayers for those costs. It's an argument about what would -- what pattern of cost recovery would result in fair and reasonable rates for the customers now and going into the future.
Q. Okay. And, Mr. Juni s, another way to decarbonize is to build really large battery systens, utility-scale battery systens, correct?
A. (Charles Junis) There are a multitude of methods to hel p address climate change. There are some questions -- and I'mspeaking about this personally now at this point, because that's how you framed the begi nning of this line of questioning -- and there are -- you have to wei gh the impacts of any path. So a battery has its own impacts, so that's how l would answer that.
Q. Well, you are aware, Mr. Junis, are you not, that utility-scale battery systens, while they're under devel opment, have not really been tested out and shown to work at that scale, correct?
A. I am not familiar with utility-scale battery st or age.
Q. Well, if you -- would you accept, subject to check, that utility-scale batteries are a technol ogy that is available -- well, let me put it this way.

Batteries are a technol ogy that is available today, correct?
A. Can you refer to me -- to my testimony of how this is rel ated? l'mdrawing a little bit of difficulty in answering this line of questioning.
Q. M. Junis, l'mjust asking you a question based on your experience with the Public Staff, okay?

The Public Staff understands, does it not, batteries today are an available technol ogy that could assist in the decar bonization of the generation of el ectricity, correct?
A. I would say that that is a question better suited for one of my colleagues in the energy di vision.
Q. Do you know or not, you personally,
M. J uni s?

MG. LUHR: Chai $r$ MtchelI, this has been asked and answered.

CHAI R M TCHELL: Mr. Mehta?
MR. MEHTA: Well, I'm not quite sure that it, in fact, has been answered, whi ch is why I've asked it.

CHAI R M TCHELL: Al I right. Mr. Junis, answer the question, please, sir.

THE WTNESS: All right. Mr. Mehta, woul d you mind repeating the question?
Q. Do you, Charles Junis, or Chuck Junis, know whether or not battery technol ogy is available today to assist with the decarbonization of the generation of el ectricity?
A. To my know edge -- and this is again my personal know edge, and it depends on al so how you define battery, because there is storage of energy in different forms, be it in compressed air, compressed water, in the movement of water, or in a more typical battery, that that is one tool available to utilities.
Q. Okay. And do you know, Mr. Junis, you personally, whether the battery -- and l'mreally tal king about the latter battery that you mentioned, the more, quote, typical battery.

Do you know whet her that technol ogy, while available, has been proven out at utility scale?
A. I do not know that.
Q. Okay. Wbuld you accept, subj ect to check, that it has not?
A. Is that generally on a, you know, worldwi de and -- you know, at what -- when you say "utility scale," are you -- there is just so many factors there that l'm not sure I can agree with that.
Q. Okay. Well, let me try to narrow it down. Wbuld you accept, Mr. Junis, subject to check, that in the United States, utility-scale battery storage has not been proven out as a technol ogy?
A. Subject to check, I would accept that.
Q. Okay. Wbuld the Public Staff, Mr. Junis, be in favor of a utility within its -- its, the Public Staff's, regul at ory ambit of being an early adopter of utility-scale battery technol ogy, even though that technol ogy is not proven, might not work, and would probably cost more money?
A. Again, l believe that that question would be better suited for one of $m y$ colleagues in the energy di vi si on.
Q. You can't answer that question?
A. You asked me to answer that question on -regarding the Public Staff's opinion, and I am not confortable making that determination. That that is more suited to one of $m y$ colleagues in the energy di vi si on.
Q. Okay.

MR. MEHTA: Chair Mtchell, I have no
further questions of this panel at this time.
CHAI R M TCHELL: Al I right. Any
additional cross exam nation for the panel ?
(No response.)
CHAI R M TCHELL: Al I ri ght. Redi rect
for the panel ?
MS. LUHR: Thank you, Chai r Mtchell. I
have several questions for Mr. Junis.
REDI RECT EXAM NATI ON BY MG. LUHR:
Q. Mr. Junis, counsel for DEC asked you about your comparison of the envi ronmental compliance record of Duke Energy Carolinas with that of Dominion; do you recall that?
A. (Charles Junis) I do.
Q. And have you had the opportunity to refresh your recollection with regard to the Public Staff's investigation during the Domin on rate case?
A. Yes, I have.
Q. So let's start with the di scussion you had with Mr. Mehta about the Domin in complaint and consent order, whi ch he introduced as DEC Juni s/Maness Cross Exhi bits 1 and 2.
A. Yes. And let me make sure I have those pulled up. So those were DEC Potential Exhi bits 22 and 23, correct?
Q. Yes, that's right.
A. All right. And --
Q. So --
A. Go ahead. I'msorry.
Q. So, Mr. Junis, with regard to the seeps referenced in those documents that Mr. Mehta asked you about, if l can get you to turn to the consent decree, which was DEC Potential Cross Exhi bit 23, and if you can pl ease turn to page 3.
A. Yes.
Q. Which is page 6 of the PDF. And can I have you read paragraph H?
A. Yes.
"On July 21, 2017, the Virginia Department of Game and Inl and Fisheries identified an area of groundwater seepage al ong the James Ri ver shoreline
adj acent to defendant's Chesterfield power station, and subsequently notified both DEQ and defendant of the same. Defendant investigated and later determined that the groundwater seepage identified by DGl S , which is the Virginia Department of Gare and Inl and Fisheries, whi ch contai ned el evated concentrations of constituents and was daylighting to the James River origi nated from an existing coal pile. In addition, on May 11, 2018, Domin nion self-reported to DEQ its observation at low tide of a small area of groundwater seepage south of the coal ash impoundment at the Chesterfiel d power station, which contai ned el evated concentrations of constituents and was daylighting al ong the James River shoreline, cl ose quote.

I would just like to clarify that Mr. Mehta asked if we were aware of said seeps in the DENC investigation, and I hel ped Mr. Lucas with his testimony. And Mr. Lucas' testimony in Docket E-22, Sub 562, Exhi bits 10 and 11 detail our know edge of these seeps rel ated to the Chesterfield power plant.

In comparison or contrast, DEC and DEP, in the joint factual statement, had identified nearly 200 seeps. And then, if you look at my page 44 of my testimny in this case, you will see a description of
the SOCs, or special orders by consent, that were entered into by DEC. And they paid up-front penalties for -- at Cliffside -- l'msorry. Allen, Cliffside, and Marshall, they paid an up-front penalty of $\$ 156,000$ due to the alleged vi ol ations of seepage fromfive deliberatel y constructed seeps and 16 nonconstructed seeps. And then at Bel ews Creek and Buck, they paid an up-front penalty of $\$ 84,000$ for two del iberatel y constructed seeps and 10 nonconstructed seeps.

And then, in addition, the federal plea agreement addresses seepage at River Bend. So the records for DEC and DENC are quite different regarding seeps.
Q. Thank you. And the seeps you just read about in the consent decree, did you take those seeps into account when you made your recommendation in this rate case?
A. I did, as part of our comparison of the envi ronmental records and the determination of our equitable share.

MS. LUHR: And, Chai M MchelI, I would
request at this time that judicial notice be taken of the di rect testimony and exhi bits of

Jay B. Lucas filed on August 23, 2019, in Docket

Number E-22, Sub 562.
CHAI R M TCHELL: Al I right. Hearing no objection, the Commission will take judicial notice of the Lucas testimony filed in E-22, Sub 562 on August 23, 2019.

MS. LUHR: Thank you.
Q. And, Mr. Junis, taking a step back, you and Mr. Mehta had di scussed the Public Staff's overall investigation into the envi ronment al compliance record of Dominion during the Dominion rate case.

Can you -- can you briefly describe the Public Staff's investigation?
A. Yes. So I want to be very clear, and when we tal ked about this trying to be better. So you had si gnificant coal ash cl osure costs in the 2017 DEC and DEP rate cases, and DEP was filed first in that iteration. And so we progressi vel y i mproved our di scovery. And I'msure Mb. Mbris and M. Robi nson are very aware of all of these data requests, but we tried to refine that process.

And so we went fromthe Duke cases into the Domini on rate case, and we used a lot of the same questions. Perhaps changing, obvi ously, the state invol ved and certai $n$ circunstances and the Company
name, but we' re asking for a lot of the same information. For example, regarding seeps, we sent a data request asking Domin in if they had seeps of unauthorized di scharges or unpermitted di scharges of wastewater fromthe coal ash impoundments. They said no.

We sent a follow up data request that actually wi dened the scope of the request, and again, they said no. And then we followed up as an additional step, which shoul d not be necessary. We followed up with the Virginia DEQ, and they informed us of the seeps at Chesterfield, whi ch were, in fact, addressed to Mr. Willians, who was the envi ronmental witness for Domi ni on.

So that is the level of investigation that we' re doing, not onl y for Duke, but for Dominion al so regarding coal ash costs.
Q. Thank you. And woul d you describe your compari son bet ween Duke Energy Carol i nas and Domi ni on, the comparison bet ween thei $r$ two envi ronment al compliance records as being qualitative or quantitative?
A. So it would be qualitative because of the complexities and challenges of a quantitative
comparison. If you just looked at, well, who has more exceedances or who has more seeps, and di dn't look at the context or wei ght those factors such as, you know, the federal plea agreement that Duke entered into regarding Dan River, regarding River Bend, that was criminal negligence, so that would be wei ghted pretty si gnificantly. But you had to do that in a qualitative manner because it is so complex. And the differences of the regul atory regi me in two states, and the history of $t h e ~ s i t e s, ~ a n d ~ t h e ~ n u m b e r ~ o f ~ s i t e s . ~$
Q. Thank you. And al ong those lines, do you recall counsel asking you whether Duke Energy Carolinas had entered a guilty plea with respect to groundwater vi ol ations?
A. Yes, l do recall that. And it -- while it is not a guilty plea in the plea agreement, groundwater exceedances are addressed in the joint factual st at ement.
Q. And if we can just take a look at that qui ckly, l believe the joint factual statement is in the record as Hart Exhi bit 3.

Do you have that with you, M. Junis?
A. Yes. Give me one second to pull that up. And that was al so incorporated by reference into my
testimny fromthe Sub 1146 case as Junis Exhi bit 31 was the j oint factual statement.
(Pause.)
Q. Just let me know when you have that.
A. Yes, I have it. I'msorry.
Q. Okay. If you can turn to page 43, and I'mat the bottom of the page looking at paragraph 138.
A. Yes, I have it.
Q. If you could, for me, begin readi ng about hal f way through the paragraph begi nning with "monitoring of groundwater."
A. Yes.
"Mbnitoring of groundwater at coal ash basins owned by Duke Energy Carolinas and Duke Energy Progress has shown exceedances of groundwater quality standards for pollutants under and near the basi ns including arseni c, boron, cadmi um chromi um iron, manganese, ni ckel, nitrate, sel eni um sulfate, thallium and total di ssol ved sol ids, cl ose quote.

And I would just add, you know, based on my under standing, not as an attorney, the j oi nt factual statement is the basis of the criminal conduct that then resulted in the plea agreement. So this is all the information that was agreed to by Duke -- both Duke
entities and the prosecutor, that this is the information that is relied on for that plea.
Q. Thank you. And noving on, Mr. Mehta presented you with a scenario regarding groundwater testing at a hypothetical facility; do you recall that?
A. Yes, I do.
Q. And under this scenario, a facility would be testing wells on a weekly basis except for two holidays every year; is that right?
A. Yes. That was the hypothetical scenario.
Q. Okay. Do you know if DEQ typically requi res testing on a weekly basis?
A. That would not be typical.
Q. And do you recall counsel stating in a question that exceedances are, in your terns, vi ol ations?
A. He did say that.
Q. Do you know whet her DEQ consi ders themto be vi ol at ions?
A. It is my understanding, based on the amicus brief, that DEQ agrees.
Q. Okay. And let's just qui ckly refer to that amicus brief, which is Public Staff Potential Redirect Exhi bit 31.

MS. LUHR: And, Chai $r$ Mtchell, let's see, l'd like for Public Staff Redirect Exhi bit 31 to be identified as Public Staff Junis/Maness Redirect Exhi bit Number 1.

CHAI R M TCHELL: Al I right. The document will be so marked.
(Public Staff Juni s/Maness Redi rect
Exhi bit Number 1 was marked for
identification.)
Q. Okay. And, Mr. Junis, are you -- well, let's start with the document. This is an amicus brief filed by DEQ on September 25, 2019, in the current appeal bef ore the North Carol ina Supreme Court fromthe 2017 DEC and DEP rate cases; and are you familiar with this document?
A. Yes. This is al so Junis Exhi bit 10 to my testimony in this rate case.
Q. And can you pl ease turn to page 7, whi ch is -- well, page 7. Let me know if you need the PDF page number.
A. Page 7 according to the numbering at the top of the page?
Q. Yes, the top middle of the page.
A. Yes, I'mthere.
Q. Okay. And can you read for me the sentence begi nning with "accordingly," and it's the third paragraph on the page.
A. Yes. Quote:

Accordingly, a violation occurs at a permitted facility if the permitted activity causes contaminate levels at or beyond the compliance boundary that exceed the 2L standards. For an unpermitted activity, a violation occurs if the activity results in an exceedance of the 2 L standard anywhere, cl ose quote.
Q. Thank you. So based on DEQ s amicus brief, does it appear that DEC al so bel ieves that an exceedance is a violation of the 2 L rules?
A. Yes.
Q. Thank you. Mr. Mehta al so asked you if other i ndustry menbers throughout the 1980s were doing the same thing as Duke Energy Carolinas with respect to coal ash mænagement; do you recall that question?
A. He did .
Q. Okay. Was Duke Energy Carolinas responsi ble for complying with the 2 L rules during that time regardless of whether other industry members were doing the same?
A. Yes. Duke was -- did have to adhere to the

2L standards since 1979. The degradation of groundwater was prohi bited.
Q. And I believe Mr. Mehta al so asked you whether you bel i eve Duke Energy Carolinas should have been more proactive in the 1980s/1990s time period.
A. Yes. A few times he used the term "proactive" regarding a utility -- hypothetical utility.
Q. And is that your position, that Duke Energy Carol inas should have been more proactive?
A. It's my opi ni on that Duke Energy shoul d have been a responsible utility, and that it would have been reasonable, based on the information available, to start groundwater monitoring earlier.
Q. Thank you. Those are all my questions.

CHAI R M TCHELL: All right. Questions
fromthe Commi ssi oners begi nning with Cormi ssi oner Brown- Bl and.

## COMM SSI ONER BROWW- BLAND: Yes.

 EXAM NATI ON BY COMM SSI ONER BROWH-BLAND:Q. Mr. Junis, I have a few questions, and some of themare just clarifying about what's meant or intended. But we'll just ki nd of wal $k$ through it. So, Mr. Junis, you -- once again, this is the third time,
or maybe the fourth, that we' ve heard about the cul pability versus the not imprudence position of the Public Staff.

Can you succinctly state what the cul pability is and how it's different fromimprudence?
A. Yes. So cul pability is Duke's responsibility or duty to comply with envi ronmental regul ations, and they have failed to do so. That is evi denced by the groundwater vi ol ations; that is evi denced by the viol ations of G. S. 143-215. 1, which is the unpermitted di scharge of wastewater; and that is evi denced by the federal plea agreement, amongst other things.

Wth that duty, you get into the complexity of determining what the costs would have been incurred if CAMA and the CCR rule didn't happen, or are these costs exceedi $n g$ what woul $d$ have been the min mum requi rement of the CAMA or the CCR rule had there not been envi ronmental viol ations. And this di stinction and the compl exity of how you recreate a record, and that's the issue.

Typi cally a prudence anal ysis invol ves not only a recognition that it was imprudent or unreasonable to make that decision, but then you have to come up with a feasible alternative. And that is
nearly impossible to do with the amount of time that we're covering, and the lack of information that would have been necessary to determine that alternative path.

And I thi nk -- I think there was one more point. Oh, so in the DEP rate case, we sent a data request to the Company highlighting a number of periods in time and asking the Company of what it would have cost to do each of those actions. That information incl uded groundwater monitoring, a certain number of wells; that included different forms of corrective action; and that al so incl uded dry ash handling. And the Company said that they were unable to do that, and al so referred to it as impossible.

So that's where our inability to do a typical prudence anal ysis leads us to the ability of the Commission, within its di scretion under G. S. 133-D in setting just and reasonable rates, that an equitable sharing is appropriate to bal ance the costs bet ween the Company and ratepayers.
Q. So aml understanding you correctly that you equate and the Public Staff equates cul pability with a dut $y$ ?
A. Yes.
Q. And notwithstanding Duke's answer to your
data request and other di scovery attempts, if there was unlimited time and resources, do you agree that other feasible alternatives could not be determined based on supporting evi dence?
A. That's correct. That you cannot materialize or create this information that would have been necessary to properly devel op and pl an an alternative course of action. And then you don't know how that woul d have been effective. So the 1982 EPRI manual tal ks about typically corrective action is not going to be one method, one shoe fits all and then the problem is sol ved. It may take a group or system of corrective actions to sol ve the problem And one of those sol utions is al ways close the impoundment and create a new storage unit.
Q. So you agree with Duke's characterization of possible or impossi bility regardless of time resource that you might have?
A. Correct. Which basically eliminates a I ong-termprudence anal ysis, and to quantify the cost difference or cost impact of thei $r$ failure to meet that duty to adhere to envi ronmental regul ations.
Q. Now, is the use of culpability, as the Public Staff uses it, a termyou' ve seen in regul at ory rules,
or a statute, or other jurisdiction? Where did the Public Staff come to settle on the word cul pability?
A. So I would compare cul pability to responsi bility, duty, basically the -- or the requi rement to adhere, and that they have some accountability for that.
Q. All right. On page 8 of your direct testimony -- let's see if l can point you to a line. So right around, say, lines 13 forward.
A. Uh-huh.
Q. Are you di stingui shing there bet ween remedi ation and corrective costs versus the actual cleaning closure removal activities rel ative to basins and I andfills?
A. So what we' re sayi ng there is that CAMA and CCR rule kind of superseded the existing regul ations. And so what we're saying is there was going to be corrective action required without those new regul ations, but now you can't delineate the costs and i mpacts of those two different regul ations because CAMA and the CCR are ki nd of superseded. And that excavation and cl osure ki nd of al ready addresses some of those issues.
Q. But is it the case that, or is there a case
to be made that remedi ation goes beyond just removing and -- removing coal ash and closing an i mpoundment or I andfill?
A. Yes --
Q. Is there somet hing more?
A. I'msorry.
Q. Go ahead.
A. Yes. All right. Is it all right if 1 answer?
Q. Yes.
A. I di dn't mean to cut you off. For example, we were able to del ineate to cost of extraction and treatment at Bel ews Creek. That is an example of remedi ation that would not have been requi red without the exi stence of groundwater vi ol ations, because ot herwi se, you would be extracting and treating clean water. But because there are viol ations, it was necessitated, and then it was an accel er ated corrective action at Bel ews Creek.
Q. Did -- do remediation and corrective action-type activities, do they somehow equate with, say, fines and penalties that you mentioned like on page 64 of your testimony? Fines, penalties or the equi val ent you say there.
A. I'msorry. Let me flip to that page to make sure.
(Witness peruses document.)
So that would be a direct cost. So like the SOC up-front penalties, that would be something that should absol utely not be allowed for cost recovery. But remedi ation and corrective action can al so be, like I tal ked about, extraction and treat ment, slurry walls, and functionally, agai $n$ tying back to CAMA and CCR kind of superseding, the excavation and closure of these sites that otherwise, had you continued to use these and you had these vi ol ations, ot her costs would have been incurred.

And who knows, DEQ may have al ready requi red the closure and excavation of these sites had they been allowed to progress without the creation of CAMA and the CCR rule. So it ki nd of took away that option in del ineating what that costs woul d have been without.
Q. So if there were no closure and -- closure and renoval at issue here, if it was more some -- you know, nore run-of-the-mill remediation efforts that you see, oversi ght that DEQ does, do -- is there some notion that doing the remedi ation, itself, is part of the -- I don't mean to say the puni shment, because I
don't think the cleanup is intended to be puni shment, but is it part of the (sound failure) --
A. I missed that last word.

CHAI R M TCHELL: Yeah.
Cormi ssi oner Br own- Bl and, woul d you ask the

Q. Is it part of the -- is the remedi ation and the cleanup part of the enf or cement, without regard to whet her we' re tal king about actually physically shutting down an impoundment? If it was remedi ation to clean up water, some effort, some running of some air, whet her it's extraction, whatever might be the corrective action; is that part of enforcement?
A. I think that's part of the accountability of the Company; that you created or caused thi s degradation of the nat ural envi ronment, and now you are requi red to remedi ate or correct that. And that's why we would likely, if it was a more traditional i mprudence anal ysis, recommend di sall owance of those costs, like the extraction and treatment at Bel ews.
Q. So -- and another piece of it is after cl osure -- cap in place, or total removal, or whatever it may be -- after that basin or landfill is completely closed, no Ionger in use, but there's still
contamination of groundwater or surface water, there would still be separate remedi ation efforts?
A. That's part of the hard part of delineating. But, for example, if you look at their corrective action pl ans the Company's filed with DEQ, like at Allen, they are proposing 87 vertical extraction wells and 76 clean water vertical infiltration wells. So functionally, they are going to pull out the contaminated water and then put back in cl ean water.

That woul d be a comparable cost that could be subject to more traditional imprudence anal ysis. So yes, there -- I hope I answered that question. Yes, there will continue to be costs that fall into this cat egory.
Q. And so goi ng back to your testimony on page 8, is that part of what you -- and correct meif it's not, you know, your way of seeing it, but what you would deemto be unfair in that there is remedi ation that is the responsibility of the Company that goes beyond mere closing and shutting down of facilities?
A. Yes. And I just I hope I'mbeing clear that some of these are not clearly del ineated fromthe requi rements of CAMA and the CCR rule. And so those fall into our equitable sharing and support that
envi ronmental pi ece of that equitable share.
Q. All right. And on page 9, line 4, there you tal $k$ about the difficulty in identifying cost of corrective actions for environmental violations.

So you're saying it's difficult to identify the costs. Is if difficult or al so to identify the actions?
A. Yes. And that's the del ineating the actions. Because like, for example, di gging up this coal ash in some of the impacted soils changes what would have been the corrective action if perhaps they stayed in place or if that was required through an exi sting regul ation. The CAMA and CCR are much more prescriptive, and so, agai $n$, it kind of supersedes the exi sting regul ations that the Company's been shown to be out of compliance with.
Q. Do you not know the actions that need to be taken? Can those not be identified, even if you can't di stingui sh the costs?
A. Well, l think part of the problemis that it has changed or determined what actions are bei ng taken. And so that's where excavation eliminates perhaps a string of actions that would have been taken al ternativel y .
Q. That's once that has occurred, correct? Once that excavation; is that what you mean? I mean, more perspectivel y . I'm asking you about more perspectively. You go in, you' re devel oping a corrective action pl an; is that not something that's fairly easy to identify? And there may be several methods to do that, but the actions that need to be taken are, in a general way at least, known?
A. Well, I would say to that, that had these been, let's say, capped in place, the corrective actions to manage that would have been different than in a situation where you excavate. Wile there may be overlap and some similarities, there is a different approach. So to ki nd of create these cost alternatives, that creates the compl exity.
Q. So in the terms of the use of the word "difficulty," there's difficulty in determining cost, as I understand it, because we're going back in time?
A. Yes.
Q. And we don't know what was available in terms of cost; we can't find the cost numbers now or no one will provi de them we have to update the costs to today's dollars; or we have to push today's dollars back to yesterday's dollars, whatever that may be. So
there's a whole magnitude of difficulty around the cost.

Is there equal difficulty in determining the actions, or does science -- state of science then and now know -- is it easier to quantify, define what the -- what corrective actions are?
A. So yes, there is equal difficulty if not more difficulty in determining the possible actions because -- and that's where we tal ked about materializing information. Because you didn't do the groundwater monitoring and assessment, you di dn't know whi ch would be the best methods for corrective action hi storically. And then, even if you di $d$ implement some of that corrective action, we don't know how effective it would have been. Wbuld it have requi red additional corrective action? Wbuld at that point, while you're continuing to monitor, would you have determined that cl osure is required, or you're going to switch to dry ash handling? There's so many different possibilities that that's where you get into kind of the i mpossi bility.
Q. All right. And al so -- I think we're on page 9, down around line 18, there you refer to 62-133(d). And realizing that you're not an attorney,
but this is part of your testimny, and I believe Mr. Maness has brought it up as well.

Is it the Public Staff's position, to your know edge, that 33-D allows the Commission di scretion, I guess, in how it reaches the just and reasonable rates?
A. Yes. It is within the Commission's di scretion to consi der these material facts, and then, in that determination of reasonable and just rates, that equitable sharing fits that. And l'd be happy if Mr. Maness has anything to add.
A. (M chael C. Maness) I agree with what Mr. Junis has said.
Q. But in doing so, the Commission al ways has to be mindful, do you agree, of any constitutional requi rements agai nst unl awf ul taking of property; is that a limitation on the Commission's di scretion?
A. (Charles Junis) So I recall a di scussion about that in the motion for reconsideration, I bel ieve, by Dominion. That is certainly a consi deration that the Cormission has to take.

Obvi ously, in our equitable sharing, it is the recovery of the costs, except it is a disallowance of the return on that and a certain amortization period. I just want
to say they're still recovering the full amount of the coal ash expenditures.
Q. All right. Now, is your $50 / 50$ in here, 1 guess, in general, the Public Staff's position you brought to us three or four time now is equitable -you call it equitable sharing. And in this case, in fact, it's proposed as equal sharing, correct, 50/50?
A. Correct. We believe that that is both equitable, and in this case it is equal, and that has been our recommendation in all four Duke Energy rate cases dealing with coal ash closure costs, remedi ation and cl osure costs.
Q. And is that $50 / 50$, is that more -- what's the basis for the $50 / 50$ ? Is that more than specul ative or arbitrary? What supports $50 / 50$ versus 60/40, 70/30? How is the Public Staff determing that exact sharing amount, and what's that based on?
A. Yes, matam So that is a qualitative figure that is based on both Mr. Maness' testimmy regarding the abandonment of nuclear pl ants, and the cleanup renedi ation of manufactured gas plants that hi storically this Commission has done a sharing. So there's a baseline based on the magnitude of the cost in Mr. Maness' testimony, and then we are adding a
pi ece to that regarding this environmental cul pability for their noncompliance. And that's how we get to the 50/ 50.

And then with the difference of the envi ronmental records of the Compani es, you see this shift, and in Domi ni on we recommended a 40/60.
A.
( M chael
C. Maness) Cormi ssi oner

Brown- Bl and, would it be all right if l added a little bit to --
Q. Yes, I was going to ask you to, so right on time.
A. Well, it seems that from-- and I can't remember if it was the DEP or DEC order in the Iast two rate cases, but there seemed to be a misunderstandi ng perhaps of my testimony. I clearly -- and l think my testimony on close readi ng reflects this, equitable definitely does not mean equal. And I have tried to reiterate that point in the Dominion and in these two current rate cases.

In fact, if you look back in the history of the Commi ssi on orders dealing the nucl ear costs, abandonment costs, there have been many references to the Commission's deci sion in those cases being equitable or to equitably share. And in those cases,
it referred and used the 10 - year amortization with no return on rate base, whi ch in those days, with those rates of return, was somewhere in the nei ghborhood of a 30 percent sharing to the -- being imposed upon the sharehol ders.

So it can differ from case to case, depending on the nature of the facts and circunstances in each case, and it is -- it is a judgment. It is not something that can be defined by a mathematical formila. It is, by necessity, a qualitative judgment, but it's one that the Commission has used many times in the past.
Q. And so when you say there's a judgment that both you and Mr. Junis -- I hear in there that there's, you know, subjectivity, that there's some objectivity based on some cal culations and what's at stake, and then on top of that there's some subjectivity applied based on behavi ors, actions coming, what ever it may be; is that accurate, and do you have something el se to fill it out with?
A. Well, I think we al so look at it in the context of history. Wat has the Commission done hi storically when it has approved its sharing, even when there's been no evi dence of wrongdoi ng or
cul pability, such as with some of those nuclear cases and a couple of other nonnucl ear cases? And saying -and sort of looking that as a qualitative baseline. You know, what do you do, then, when you have a case like this in whi ch we believe cul pability is present.

In the end, though, it is a judgment. Using the word subjective, I don't want to make it appear that it's an arbitrary judgment, but it is a qual $i$ tat $i$ ve $j$ udgment.
Q. And so qualitative is the way of saying there's not a hard and fast way to know to settle on the exact proportion of sharing; is that accurate?
A. (Charles Junis) Yes.
A. (M chael C. Maness) Yes. Not in a mathematical or -- I use the word quantitative way.
Q. All right. So, Mr. Junis, on page 12, Iine 19, there you reference past management of coal ash, and l would take that to mean past decisions and past activities taken, has resulted in risk of future contamination. I take it that addresses the ongoing nat ure, the contami nation continues?
A. (Charles Junis) Yes. And so that -- that sentence is regarding the framework. And so the Company's actions and omissions of actions resulted in
a regul at ory envi ronment that the EPA and North Carol ina addressed. That they created this risk, and the contamination coul d continue to spread. And so one way to fix that is excavation and then corrective action.
Q. So today, are there new and di screte instances of contamination, would you say, as opposed to past contami nation?
A. Yes. The -- until there is clean closure, there will be the continued risk of the spread of contamination. And I think that speaks to partially why the legi slature required alternative water sources. That there was this untenable risk to surrounding nei ghbors' water quality.
Q. And you indi cated risk, but l guess my question is, to your know edge, are there actual new instances of contamination that occurs today, or you woul d not -- or you would consider it past contamination, or is it new contamination?
A. So at certain sites where ash is still in the i mpoundments, there continues to be seepage and the spread of, I woul d say, new contamination. If the pl une grows, I would say that growth is new cont amin nation.
Q. So contamination is not all historical ?
A. That's correct.
Q. All right. On -- and on page 13 there, you tal k about traditional imprudence leads to 100 percent di sallowance of cost.

Is that 100 percent di sallowance for instances? In other words, in this situation we have, you know, a gl obal big picture of coal ash handling activities; could it be that there are instances within that? Is that what you mean when you say 100 percent di sal I owance?
A. Yes. Discrete di sallowances of cost.
Q. So traditional imprudence woul d not require that all the global costs be di sallowed?
A. Correct.
Q. So if you found di screte instances that you could address and show i mprudence, it would be 100 percent of that discrete piece that would be di sallowed? But other portions of remedi al cleanup and those ki nds of things, if they weren't found to be i mprudent, they would still be allowed; is that correct?
A. Correct. And I think this is more catered to just the big picture view of the compl exity of
identifying the costs and actions and the potential alternatives. And so we're saying, we di dn't have that opportunity to make the imprudence adj ustment on a si gnificant portion of these costs. And so that's what -- where we' ve then relied on the equitable sharing.
Q. All right. And on page 66 of your testimony, somewhere on there you refer to surface water di scharges as violations.

And my question is, when you say that, are you referring to specific di scharges that are -- that have been di scussed somewhere el se in your testimny or in your incorporated testimny, or are you referring to somet hi ng el se?
A. So you' re referring to the sentence that starts on line 4 of page 66:
"For example, there are vi ol ations of NC Gen St at 143-214.1"?
Q. Yes.
A. Okay. Those would be seeps, specifically. So those are the engi neered, del i beratel y constructed seeps, those are the nonconstructed seeps, those are surface di scharges, unpermitted surface di scharges of coal ash wastewater.
Q. And those that rel ate to surface water, you know, as opposed to speaki ng to groundwater, those are in your testimony or in the record?
A. Yes. And then you have the compl exity, whi ch mi ght have insi nuated intentionally or uni ntentionally, the Hawai i case bef ore the Supreme Court dealing with seepage into the groundwater that then reaches surface water. That is not accounted for in our testimny, because that was still a very, lack of better words, fluid situation.
Q. And back for a minte to the concept of i mprudence. So cost of cl eaning and remedi ation, the actual activities necessary to do that, the cost associated with it could be reasonable in that not a single cent spent was improper or unnecessary to do the job, correct?
A. Correct. So I would say the Bel ews Creek extraction treatment was necessary to correct that groundwater contamination, and they appropriately incurred that cost; but it was imprudent fromthe very begi nni ng to have created a situation where that was necessary, that remedi ation.
Q. All right. So imprudence is about both the cost and the actions or the decisions?
A. Yes.
Q. One could be prudent, but the ot her i mpr udent?
A. That's correct.
Q. They don't have to be the same?
A. I agree.
Q. Okay. Mr. Maness, on page 18 of your
testimny there, you use a phrase "specul ative to some degree. "
A. (M chael C. Maness) Hol d on, let me -- if I can pull that up, hol d on just a second.
Q. Sure.
A. (Witness peruses document.)

Yes, I see.
Q. Does that imply or do you mean to imply that there is some degree to which -- to whi ch some are not specul at ive?
A. I actually there amjust referring to what Mr. Junis testifies to. Mr. Junis al so testifies that it's very difficult to quantify the costs for such actions as the costs of taking an alternative course of action in the past would be specul ative to some degree. And I don't know if l was directly quoting a word from hi s testimony or just paraphrasing, but it was meant to
convey the meani ng of M . Juni s' testimony as to when equitable sharing would be the path to take.
Q. I believe, and Mr. Junis can correct me if I'murong, but l believe, in general, his testimony was sai d more conjecture, as I said, nore gl obal. So । thi nk he used phrases sort of more al ong the lines of 100 percent, or impossible to quantify, or more specul ative. And so l'masking you, I guess, was this a full (sound failure) --
A. I'msorry. Commissioner Brown- Bl and is frozen on my computer.

CHAI R M TCHELL: Commi ssi oner Brown- Bl and is having connectivity issue at the moment. Let's gi ve her a few seconds. It may resol ve itself.
(Pause.)
CHAI R M TCHELL: Al I right.
Commi ssi oner Brown- Bl and, are you back? Can you hear us?
( No response.)
CHAI R M TCHELL: Okay. At this point in time, let's proceed with Commissioner Gray, questions from you.

COMM SSI ONER GRAY: No questions at thi s
time. Thank you.
CHAI R M TCHELL: Al I right. Thank you, sir.

Cormi ssi oner Cl odf el ter?
COMM SSI ONER CLODFELTER: I do not have questions for the panel.

CHAI R M TCHELL: Okay.
MS. LUHR: Chai r MtchelI, I apol ogize for inter rupting. It appears that Mr. Grantmyre had some redirect questions for Mr. Maness but was having some technical difficulties and was unable to al ert you at the time. Wbuld it be acceptable for himto ask those redirect questions now or at a later time?

CHAI R M TCHELL: All right. We now have Commissioner Brown- Bl and back, so let's let her finish her with her questions.

COMM SSI ONER BROWW- BLAND: Al I right.
l'mjust about at the end.
Q. So I was asking, Mr. Maness, is there some degree there of indication that there's something built in that's not so specul ative?
A. Into equitable sharing or just in general?
Q. Just in general as to your testimny there at
the bottom of page 18 .
A. Well, I think the implication is, you know, there have been specific adj ustments recommended in the case to be di sallowed from Mr. Garrett, Mr. More and Mr. Junis. And so those would not be specul ative. So -- but the speculative here is meant to refer to the difficulty to quantify costs to the extent that we don't believe that the evi dence can be generated to determine a specific dollar amount prudence di sall owance. And ther ef ore, it goes into-- I guess in terminol ogy we typically use, into the equitable sharing bucket where we believe there's some cul pability but we can't identify the evi dence to generate a specific dollar amount for a prudence di sall owance.
Q. And on page 25 of your testimn mou indi cate there -- let me see if l have a line number. Li ne up at the top, 1 through 4, you say it is your understanding that equitable sharing of prudently incurred utility costs has been ruled to be lawf in past cases. I point you there to your use of the word " pr udent ly. "

Does that indi cate that you still need to make some determination of prudence in order to
determine what costs can be shared?
A. Yes. And I think I would point to the nuclear abandonment cases. And l can't recall in every one of those cases. I know that, for example, in the Harris unit 1 case, E-2, Sub 537, the Public Staff and its consultants made assertions of imprudence that the Cormi ssi on event ually chose to share bet ween the customers rather than tal king about the whole amount bei $n g$ i mprudent.

But in the earlier cases, there are several cases where at least the Public Staff and the Commission did not make allegations of imprudently incurred costs, but instead said that those costs shoul d be equitably shared bet ween the customers and the stockhol ders of Duke CP\&L at that time, or Virginia El ectric and Power Company. We would say -- and the Commission's orders would reflect that the use, for example, in those cases of the 10 -year anortization with no inclusion in rate base of the unamortized bal ance would more equitably share the burden of those costs between the ratepayers and the sharehol ders. So that exi sted without any finding of imprudence on the part of the compani es.
Q. If the record supported some showing of
i mprudence, and those costs could be pi nned down in a way that went beyond specul ation, would it be, under equitable sharing, that those imprudent portions of cost, di screte itens or what have you, would be pulled out first before you would even look at the equitable sharing--
A. Yes.
Q. -- what would be equitably shared?
A. Yes. And that, in fact, is our proposal, our recommendation in this case, that the imprudence adj ustments recommended by other Public Staff witnesses be removed fromthe bal ance and disallowed in thei $r$ entirety, and then the remai nder be equitably shared.
Q. All right. That's all my questions.

CHAI R M TCHELL: All right.
Mr. Grantmyre, you may proceed with your redirect.
MR. GRANTMYRE: Yes, on redi rect --
MR. MEHTA: Chai r Mtchell, bef ore we
get there, l believe that the proper procedure is for the Public Staff to get all of its redirect questions out and then we go to Commission's questions. And I can certainly appreci ate that somebody can have techni cal difficulties, but there's lots of people on the Public Staff that
could have drawn this to the Commission's intention much earlier than right now. And I believe it's i mproper for Mr. Grantmyre, having heard a whole bunch of questions from Commi ssi oner Brown- Bl and, to now go into redirect.

CHAI R M TCHELL: Al I right. Mr. Mehta, I hear your objection. I'mgoing to allow Mr. Grantmyre to proceed neverthel ess. Mr. Grant myre, pl ease -- going forward -- this goes for all counsel. Going forward, given that we are connected remotel y and there are connectivity issues fromtime to time here, if it is your turn to present during the course of the proceeding and you are unable to because you are not connected, you must take action to al ert me to that fact, whether through co-counsel or waving your hands around wildly so l can see you or some ot her manner.

But, Mr. Grant myre, we are goi ng to allow you to proceed here, and I would ask that you pl ease make efficient use of this time.

MR. GRANTMYRE: Yes.
REDI RECT EXAM NATI ON BY MR. GRANTMYRE:
Q. This is to Mr. Maness. You were asked al so
by Cormi ssi oner Brown- Bl and how the $50 / 50$ split was devised. And in your di rect testimn --

CHAI R M TCHELL: Mr. Grantmyre, l'm
going to interrupt you here. We are on redirect --
l'mallowing you to proceed with redirect examinations, not questions --

MR. GRANTMYRE: Okay. Mr. Mehta al so
asked this same question, how did they arrive at 50/50, so l'Il go on redirect.
Q. Did you say in your testimony one is the I arge amount of the coal ash costs they're trying to recover?

MR. MEHTA: Obj ection. Leadi ng.
CHAI R M TCHELL: Restate the question, pl ease.
Q. Did you or did you not refer to the I arge amount of coal ash cost?

MR. MEHTA: Obj ection.
CHAI R M TCHELL: Basis for the obj ect i on?

MR. MEHTA: Well, "di d you or di d you not" is basi cally leading, Chai r Mtchell.

CHAI R M TCHELL: Al I right.
Mr. Grantmyre, let's restate the question, please.

Ask it in a nonl eading way.
Q. What were the other factors that you pointed out in your direct testimony that contributed to the 50/ 50 split?
A. (M chael C. Maness) In addition to the position of Mr. Junis regarding cul pability, we tal ked about -- I tal ked about the -- in general, there's a hi story of approval of sharing for extremel y Iarge costs that do not result in any new generation of el ectricity for others. And that even if the reasons for equitable sharing set forth by Mr. Junis were not present, the Public Staff still believes that some I evel of sharing, perhaps comparable to that previ ously used for abandonment losses, uncancel ed nucl ear generation facilities, would be appropriate and reasonable for DEC's coal ash costs.
Q. Can you --
A. And one of the reasons for that -- l'msorry?
Q. Go ahead.
A. The total amount of costs is extraordinarily I arge, and this is referring to my original testimmy, so the bal ances have changed somewhat since then. But the total amount of costs that were incurred during the J anuary 2018 through January 2020 period were
approxi matel y $\$ 330$ million a system basis.
North Carolina retail amount that the Public Staff is presenting, or the Company is presenting for anortization was approxi mately $\$ 243$ million, which would be about $\$ 104$ per North Carolina retail customer.

So even without -- even without the renoval of the unamortized anount fromrate base, I would think that a five-year period would be much too short for an expense of this magnitude.

We al so have to consider the fact that this is just a small piece of the pie, so to speak, the Company will most likely be asking for. In the next few years we'll tal king about billions of dollars that most likely will cone up in future rate cases rel ated to coal ash sharing.

Additionally, you have to keep in mind that the incurrence of these costs is not really provi ding any additional benefits to customers in terns of additional el ectric service or improvements of service. You al so have to consider that these costs -incurrence of these costs has not been the result of an economic anal ysis that poi nted toward an action that will be economically advantageous to the ratepayers.

And finally we have to take into effect that
equitable sharing hel ps mitigate the intergenerational inequity of present and future customers paying for costs that, to the extent you can say that they were the result of, at least you can say they were rel ated to service to customers in past decades. And it would just not be fair to impose all of those costs on present and future customers.
Q. Al so, what, if anything, did you say in your direct testimony about coal ash costs bei ng used and usef ul?
A. Well, the coal ash costs we're tal ki ng about here, as l've testified previ ously, they're expenses, and they're not property that would be used and useful under 62-133(b). They' re costs rel at ed to service that was provided in the past. And for that reason, they shoul d be wi del y regarded as expenses rel at ed to past service, and not in any way assets rel at ed to future service to the customers.
Q. Now, you were asked about the Sub 142 Duke Carolinas case, and if l were to summarize your testimony, you respectfully di sagreed with the Commission's decision; is that correct?
A. The 1146 rate case?
Q. Yes, Duke Carolinas.
A. Yes, I did.
Q. And would it be fair to say that you agree with -- that the Commission got it right in the Dominion case, as far as the end result not necessarily deci ding on equitable sharing?
A. Well, I think that, personally, l was pleased that the Commission did decide, in that case, that it was within its discretion to excl ude the unamortized bal ance fromrate base and not allowit to earn a return. Of course, we bel ieved that the amount of sharing as an end result should have been higher in that case, that it should have been 40 percent. I thi nk the Commi ssi on's order, in effect, shared about 26 percent with the sharehol ders.

But I would say that I was pleased that they di $d$ deduct -- find it within thei $r$ di scretion to deduct that amount fromrate base and did, in fact, take that action.
Q. Thank you. I have no further redi rect.

CHAI R M TCHELL: Al I right. At this
point we' ve come to our I unch break. We will go
off the record. We will go back onto the record at 1: 30.
(The hearing was adjourned at 12:21 p.m
and set to reconvene at $1: 30 \mathrm{p} . \mathrm{m}$ on Mbnday, Septenber 14, 2020.)

|  | Page 133 |
| :--- | :--- | :--- |
| and set to reconvene at $1: 30 \mathrm{p.m}$ | on |
| Mbnday, Sept enber 14, 2020.) |  |

## CERTI FI CATE OF REPORTER

STATE OF NORTH CAROLI NA ) COUNTY OF WAKE )

I, Joann Bunze, RPR, the officer before whomthe foregoing hearing was taken, do hereby certify that the witnesses whose testimny appear in the foregoing hearing were duly affirmed; that the testimony of said witnesses were taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I amneither counsel for, rel ated to, nor employed by any of the parties to the action in which this hearing was taken, and further that I am not a rel ative or empl oyee of any attorney or counsel employed by the parties thereto, nor financially or otherwi se interested in the out come of the action.

Thi s the 16th day of September, 2020.


J OANN BUNZE, RPR
Notary Publ ic \#200707300112
(919) 556-3961

