

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA  
COLUMBIA, SOUTH CAROLINA

PROCEEDING #15-11470

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**ALLOWABLE EX PARTE BRIEFING - ND-2015-10-E**

SOUTHERN ENVIRONMENTAL LAW CENTER - Update on the Status of Coal  
Ash at the Robinson and Lee Plants

**TRANSCRIPT OF  
PROCEEDINGS**

**ALLOWABLE  
EX PARTE BRIEFING**

**COMMISSION MEMBERS PRESENT:** Swain E. WHITFIELD, *Vice  
Chairman*; and COMMISSIONERS John E. 'Butch' HOWARD,  
Elliott F. ELAM, JR., Comer H. 'Randy' RANDALL, and  
Elizabeth B. 'Lib' FLEMING

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Elizabeth M. Wheat, CVR-CM/M-GNSC, Court Reporter; and Hope Adams  
and Deborah Easterling, Hearing Room Assistants

**APPEARANCES:**

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SOUTHERN ENVIRONMENTAL LAW CENTER

***ANDREW M. BATEMAN, ESQUIRE***, representing THE  
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Note: For identification of additional referenced materials and/or links for same, please see Certification correspondence filed by the Office of Regulatory Staff. See also the following page's listing of attachments to the record provided by SELC.

Please note the following inclusions/attachments to the record:

- PowerPoint presentation slides (PDF)
- duke-energy-ash-basins-fleetwide (downloaded 2014-10-13)
- DHEC-Duke Lee SC Consent Agreement - 2014-09 — Removal of Ash from Old Sites
- DHEC 2007 Barnwell Booklet
- 2015-02-24 DHEC HB Robinson ash basin comments
- 2014-12 Robinson Closure Plan Investigation — Text Only
- 2014-12 Arsenic Groundwater Results from closure Investigation
- 2014-09-30 Flood Evaluation Amec
- 2014-09-23 UF-SOS-Duke Agreement on Lee SC— fully executed
- 2014-09-23 Transcript of Duke Presentation to SC PSC re Robinson (see also provided link to Duke briefing)
- 2014-09-09 DHEC Notice of Violation re Arsenic Groundwater Contamination
- 2013-10-13 Duke Says Closure at Robinson Complicated Due to Radioactive Waste
- 2012-04-11 DHEC Memo re Pre-2013 Arsenic Groundwater Contamination
- 2006 Progress Sediment Transfer Request Setting Out Radioactive Sediment Transfers
- 1999 CP&L Radioactive Sediment Request
- 1998 CP&L Low Level Radioactivity Request to DHEC
- 1994 NRC Report on Disposal of Slightly Contaminated Radioactive Waste (Including Robinson)
- 1983 Request to NRC for Low Level Radioactive Sediment to Ash Pond at Robinson
- 3-20-15 HB Robinson ID D3514 Response to Comments re Discharge System and ATTACHED ROB-113\_Phase1\_H+H Report\_REV\_3-11-15 (updated post-briefing to include attached report)
- 1999 DHEC Approval of CP&L Robinson Low Level Radioactivity Disposal (provided post-briefing)
- 2013-11-19 Myrtle Beach Sun News -- Grainger Settlement
- <http://www.duke-energy.com/pdfs/duke-energy-ash-metrics.pdf>
- <http://www.greenvilleonline.com/story/opinion/editorials/2015/01/06/editorial-duke-moves-forward-coal-ash/21350977/>
- <http://www.wsocvtv.com/videos/news/coal-ash-at-asheville-airport-could-beexample-for/vCT5Wr/>
- <http://www.duke-energy.com/pdfs/asheville-excavation-fact-sheet.pdf>
- <http://www.energy.sc.gov/files/view/SCEG2014IRP.pdf>
- [http://www.myhorrynews.com/news/local/conway/article\\_eb3396ea-5228-11e3-840f-0019bb30f31a.html](http://www.myhorrynews.com/news/local/conway/article_eb3396ea-5228-11e3-840f-0019bb30f31a.html)
- <http://dms.psc.sc.gov/matters/matters.cfc?Method=MatterDetail&MatterID=252680> (9-23-14 Duke *ex parte* briefing in ND-2014-28-E - transcript also provided as pdf file by SELC)

P R O C E E D I N G S

**VICE CHAIRMAN WHITFIELD:** I'll call this allowable ex parte briefing to order and ask our attorney, Joseph Melchers, to read the docket.

**MR. MELCHERS:** Thank you, Mr. Chairman. Commissioners, we're here pursuant to a Notice of Request for Allowable Ex Parte Briefing, scheduled for today, April 9th, at 2 p.m., here in the Commission hearing room.

The party requesting the briefing is the Southern Environmental Law Center, and the subject matter to be discussed is: Update on status of coal ash at Robinson and Lee plants.

Thank you, Mr. Chairman.

**VICE CHAIRMAN WHITFIELD:** Thank you.

I recognize Mr. Andrew Bateman, here for ORS. You're representing ORS today?

**MR. BATEMAN:** I am, Commissioner.

**VICE CHAIRMAN WHITFIELD:** Thank you, sir.

And at this point, I'll turn it over to Mr. Frank Holleman.

**FRANK S. HOLLEMAN, III [SELC]:** Thank you, sir. Thank you, Mr. Chairman.

[Reference: Presentation Slide 1]

And I want to particularly thank the

Commission for this additional opportunity to lay out some of the serious threats to our State, our clean water, and our communities, from primitive coal-ash storage by utilities.

Today I want to give you what I hope is a final update on coal ash at Duke's Lee facility on the Saluda River, near Greenville, in Anderson, and to bring to your attention some disturbing information about Duke Energy's coal ash stored at its Robinson plant on the banks of Lake Robinson and the Black Creek, near Hartsville in Darlington County.

First, some good news. On September 23rd of last year, Duke Energy told the Commission that it would remove some of the coal ash at Lee from old storage sites on the banks of the Saluda River and move it to safe, dry, lined storage. That was the result we had been seeking also, for all the – all the ash at the Lee site. But as a first step, we had negotiated an agreement with Duke for this removal of some of the ash. After Duke made its public announcement here at the Commission, that same day it signed an agreement with our clients – Upstate Forever and Save Our Saluda – to remove that ash; and some days later, DHEC entered into an

enforcement agreement with Duke Energy, requiring removal of that ash to dry, lined storage.

We continued negotiations for removal of all the ash and, in December of last year, 2014, we and Duke Energy announced an agreement in principle to remove all the ash at Lee – all the ash, not just part of it but all of it – at Lee, to safe, dry, lined storage.

I want to emphasize that these agreements were reached without any litigation. Duke Energy, Upstate Forever, and Save Our Saluda were able to meet, lay out the issues, and reach a resolution that protects the river, the State's clean water, and nearby communities, and that also accommodates Duke Energy's scheduling and other needs to accomplish the removal. I'd like to say, too, that DHEC played an important role in pursuing dam safety issues at the site.

We appreciate Duke Energy's willingness to address the Lee site, and we especially appreciate the openness of its South Carolina leadership and its Charlotte representatives, with whom we met, to take action that is in the best interests of the State and its natural resources.

With this announcement, South Carolina became

the first state in our region – for all I know, in the country, but definitely in our region – where the State's utilities have either cleaned up, are cleaning up, or have committed to clean up every water-filled, waterfront coal-ash lagoon in the State. It's a major accomplishment.

This Commission lent a hand to this achievement by its willingness to provide a forum to air the coal-ash threats to the State and through its good questions during our prior briefings. We appreciate the contribution that the Commission has made to this significant accomplishment for our State, so there are a lot of cooks who contributed to this good outcome for our State.

There remains, however – and here's the concerning news – one remaining public utility with a looming coal-ash threat to the State: Duke Energy's coal-ash storage at its Robinson plant on Lake Robinson and Black Creek, near Hartsville in Darlington County.

The last time I appeared here in September, one member of the Commission asked me about Robinson, you may remember, and I had to confess that we knew little about it. We understood from

Duke Energy, and heard at the hearing – at the briefing, that the basin had drained out and that this site was the smallest in Duke's fleet, with less than a million tons of coal ash. At the presentations here before the Commission, Duke Energy didn't mention any serious issues at the site, and we had not seen any public discussion of any. Consequently, we hadn't put Robinson at the top of our list, particularly given all that was going on with Duke Energy in North Carolina and what we had found at Lee.

But because of the Commissioner's question, we felt we should take a look at Robinson and look at the publicly available documents to see what they revealed. And I'd like to say, too, we've worked with and, you know, are also representing the Coastal Conservation League, and Nancy Cave is here from the Coastal Conservation League, with respect to Robinson.

Here is what we found. First, there is an established problem with arsenic pollution at Robinson – and this time, I brought a PowerPoint, even though I am a Presbyterian.

[Laughter]

[Reference: Presentation Slide 2]

There is an established problem with arsenic at Robinson, and the extent of the arsenic contamination is striking.

The standard for arsenic in groundwater in South Carolina is 10 parts per billion. For some time, Duke Energy has known that its testing has shown arsenic contamination that was over twice that standard, or 23 parts per billion. And what I have on the screen there is a 2012 DHEC memorandum describing that. So that's twice the standard, which is of concern, but it's 23 versus 10.

However, in 2014, after the Dan River disaster and after problems at Lee and our litigation with Santee Cooper and SCE&G, DHEC required more thorough groundwater monitoring at Robinson.

[Reference: Presentation Slide 3]

A new well placed closer to Lake Robinson immediately revealed arsenic contamination of over 11 times the standard – not twice, but 11 – at 115 parts per billion. In early September of last year, as a result of that – and this is what's on the PowerPoint – prior to Duke Energy's presentation to the Commission on September 23rd, DHEC – that's two weeks before Duke appeared before the Commission last year – DHEC officially notified

Duke Energy that it was violating South Carolina law due to its contamination of the State's groundwater with arsenic from its coal-ash storage at Robinson.

Thus, when Duke Energy appeared before the Commission in September, it was in violation of South Carolina law due to its arsenic pollution at Robinson, according to DHEC. This is an official Notice of Violation [indicating].

Thereafter, further groundwater testing was done at Robinson. In December of last year, the testing showed that Duke Energy's coal ash had contaminated the State's groundwater with arsenic at 110 times the standard, or 1100 parts per billion.

[Reference: Presentation Slide 4]

And the next slide – although it's sort of hard to read because it's a chart – that's where the 1100 shows up. There are other amounts shown, as well.

This is a very large number. It is 10 times – almost 10 times the number that DHEC in September had found was a violation of the State's groundwater standards. And it is undisputed that this groundwater flows to Lake Robinson. That is

not disputed.

And by the way, there's no reason to think that these high levels of arsenic are new. No new ash has been put in the basin, we understand, at least since 2012. You may know that coal-fired plant no longer operates. Instead, it appears that Duke Energy's groundwater testing in prior years was woefully inadequate and provided incomplete data about the magnitude of this illegal pollution.

We also found in DHEC's records a fuller understanding of the contamination of the State's groundwater by Duke Energy's coal ash at Robinson. The coal ash at Robinson has been dumped 18 feet into the groundwater.

[Reference: Presentation Slide 5]

This is from Duke's consultant's report in December of last year that they had to provide to DHEC –

[Reference: Presentation Slide 6]

– and as you can see, they say that. Let me say that again: The coal ash at Robinson is 18 feet below the groundwater table. Understandably, DHEC has recently notified Duke Energy that a closure plan for Robinson must get the coal ash out of the groundwater.

We have also been surprised that Duke Energy had no real idea of how much coal ash it was managing at Robinson. Duke Energy's website told the public last year – let me get to that.

[Reference: Presentation Slide 9]

– that 660,000 tons of coal ash were stored at Robinson. This is from Duke's own website of last year. As you can see, it shows 660,000 tons. That's the smallest amount in Duke's fleet at that time.

[Reference: Presentation Slide 10]

Today, the same website admits there are 4.2 million tons, or almost seven times as much. In other words, until recently, Duke Energy lost over 3½ million tons of coal ash at Robinson. Didn't even know it had it.

Last September as you may remember, when Duke was here and questioned on this topic –

[Reference: Presentation Slide 7-8]

– Duke Energy told the Commission that it stored about 2.3 million tons of coal ash in South Carolina at both Robinson and Lee. And that's from the last transcript. And as you can see –

[Reference: Presentation Slide 9]

– that's what was on their website: 2.3

million tons, about.

But, now, Duke admits it stores over 7.8 million tons at these two sites –

[Reference: Presentation Slide 10]

– over three times as much as it thought it had, last September. In other words, Duke Energy has discovered 5.5 million tons of coal ash in South Carolina that it didn't know it had.

The files also contained a Dam Safety Report prepared by expert consultants for Duke Energy and transmitted by Duke Energy to DHEC. We had the report reviewed, and it was apparent that this report was seriously defective.

It projected that, upon a 50-year flood, a wall of water over 4,000 feet high would exit the Robinson coal-ash basin and that water would be shot out of the lagoon at impossibly high rates of speed. Now, remember, 4,000 feet is 8/10 of a mile high; that's like a tsunami in Hartsville.

We notified DHEC and DHEC agreed, and required that the study be redone. Duke Energy now admits that its official Dam Safety Report, which it submitted to DHEC, was based on what it calls "errors in modeling," but still contends in a new report that the dam can hold a 50-year flood. We

are reviewing this report, too.

Finally, and perhaps more surprising, we discovered that this unlined open pit on the banks of Lake Robinson – which is a very popular regional recreational and fishing lake – had been used as a dump for low-level radioactive waste.

Now, first, I want to say, in defense of Duke Energy, it should be pointed out that the dumping of this low-level radioactive waste occurred prior to the merger with Progress and was done in the 1980s and 1990s. We have to believe that the current management of Duke Energy – and, particularly, Duke Energy in South Carolina – would not dump low-level radioactive waste in an unlined, open pit next to a public lake.

Much of the low-level radioactive waste was sediment contaminated by radioactivity coming from leaks from the nuclear plant that is adjacent to the coal plant. You may know at this site there's a nuclear plant on Lake Robinson, and there was a coal plant next to it, which no longer operates. This process began illegally in 1980 when radioactive materials were put in the pit without communicating with the appropriate government agencies. Then, in 1983, the utility once more

deposited low-level radioactive waste in the pit.

This waste – this is striking, and we just found this in the records. We didn't know this. This waste was originally intended to go to the Barnwell low-level nuclear waste landfill, but the Barnwell facility refused to accept it. So this is waste Barnwell rejected. Barnwell refused to accept the waste – and you can read this quote, too; it's in the documents.

[Reference: Presentation Slide 11]

– because it contained Radium-226, quote, "in concentrations which are not incidental to that of the man-made activity," quote, and because the Radium-226 was considered, quote, "to be technologically enhanced as a result of volume reduction during coal combustion."

After Barnwell rejected the waste due to its Radium-226, the utility could have shipped the waste to Washington State, but to save money it sought approval to dump it into the Robinson unlined pit. The decision to dump, to dispose of low-level radioactive waste, in the Robinson pit instead of at Barnwell or a similar facility is striking because of the justifications for the Barnwell facility as compared to the utility's

justification for putting the radioactive waste in the Robinson pit. And let me explain that. We found a 2007 DHEC publication – which we've submitted to the Commission; it's in the record – on Barnwell, a publication DHEC has put together, in which DHEC explains why Barnwell is a good place to put low-level radioactive waste, in DHEC's opinion. And DHEC says it considers Barnwell an acceptable receptacle for low-level nuclear waste because, first, the facility uses shallow land burial, below the surface but above the water table; second, because the site has clay-rich soils, which retard the movement of groundwater; also, because the low-level waste is put in containers that are also entombed in concrete vaults; and because the Barnwell facility uses techniques to minimize water infiltration. That's why Barnwell, according to DHEC, is good.

But if you read the document from 1983, which is in your record and that's part of it, this is what that document says, when they disposed of this low-level radioactive waste at Robinson in an unlined pit: The utility's own document describes the proposed disposal of radioactive waste at Robinson and shows that the Robinson pit fails all

these standards. Instead of being put in containers and entombed in concrete vaults, the low-level waste was – and this is a quote – "slurried at the face of the bluff and washed into the pond using pond water." Second, the utility contemplated that the – and this is a quote – "available hydrologic information indicates that water can readily seep from the ash pond," quote, and that, quote, "this seepage would migrate toward Lake Robinson where any radioactivity would be diluted."

Now, remember what DHEC says about Barnwell is it's such a good site because it contains the radioactivity and doesn't let it get into the water. This document says it's a great – "This is a good site because we eventually contemplate it will get into Lake Robinson and there it will be diluted."

The utility recognized that the Robinson ash pit – that at the Robinson ash pit, quote, "the water table is fairly close to the surface." And I'm sure that any of you who know the area around Chesterfield and Darlington Counties, that comes as no surprise. The report also says that the geologic formation at the pit was, quote,

"permeable," quote – not waterproof – and that groundwater at the location was, quote, "unconfined and free to move in a vertical direction," quote. As we have learned recently, also at Robinson, as we just showed, the coal ash itself extends 18 feet into the groundwater. In other words, the disposal of low-level radioactive waste at Robinson flies in the face of each of these characteristics that DHEC considers essential to storage of low-level radioactive waste at Barnwell. The Robinson low-level radioactive waste was not put in containers, but instead was crudely washed into the coal-ash pond, into an area with groundwater close to the surface, where the radioactive material would seep freely into the groundwater through permeable material and make it into Lake Robinson to be diluted in a public recreational and fishing lake.

Disposal of contaminated sediments and other low-level radioactive materials, according to the documents we've seen – and all we can go by is what we have found in DHEC's file or on the Internet – occurred on several occasions in the 1980s and 1990s. The materials we have seen so far show at least six occasions.

[Reference: Presentation Slide 12]

This is one report from the Nuclear Regulatory Commission that shows some of them, and one of them is highlighted. Overall, counting it up, the documents indicate contemplated disposal of over 70,000 cubic yards of contaminated sediment, as well as other contaminated materials.

Now, remember, when we were here in September, as I told you, we didn't know anything about Robinson to amount to anything. Didn't know very much. And we didn't think or know there were any serious problems there. I will tell you, we have not seen and there's not another one on this Nuclear Regulatory Commission list of a coal-ash pit where radioactive materials – low-level radioactive materials – have been discharged.

So this surprising story, once we saw it, it occurs to us, should make it more urgent to excavate this problematic basin and move the ash to safe, dry, lined storage away from Lake Robinson. To our knowledge, the public was never informed of this disposal of low-level radioactive waste until we discovered these documents after appearing before the Commission – to our knowledge.

From our review of the presentation, Duke Energy didn't disclose these facts in its

presentation to the Commission in September of 2014 and, to our knowledge, Duke Energy or its predecessors – Progress and CP&L – have not otherwise notified the public or this Commission, either, of this low-level radioactive dumping or of the arsenic contamination and legal violations at Robinson.

To summarize, this is what we have found, which was contrary to what we thought when we were here in September: We have found that Robinson is not a small coal-ash storage site without serious problems. Instead, it is a place where Duke Energy stores a large amount of ash in an unlined pit next to an important water resource, where Duke Energy has illegally contaminated groundwater with high amounts of arsenic, where coal ash is stored deep into the groundwater, and where low-level radioactive waste was dumped over a period of almost 20 years, with the recognition that the radioactivity would flow into the groundwater and then be diluted in Lake Robinson. And it's also apparent that, until DHEC and we began raising issues about the site, Duke didn't have even the basic information about it and was certainly not adequately managing it for public safety or in

compliance with the laws that protect the public and natural resources. Duke had no idea how much coal ash it was storing at this site. It had underestimated the amount by a factor of six. It had not adequately monitored or measured its groundwater contamination. Once the additional tests were put in place, the measured amount of arsenic went from 23 parts per billion to 1100 parts per billion.

From the documents we've seen, it at least documented for the first time in December how deep its ash penetrated into the groundwater. And its consultants prepared and then it submitted to the government a seriously defective Dam Safety Report. And this site has been and remains in violation of South Carolina law.

Given all these facts, you would think that Duke Energy would've long ago begun removing the ash from this site to safe, dry, lined storage and would've made a point of committing publicly to removing this ash away from Lake Robinson, out of the groundwater, and to secure, lined storage. But so far, Duke Energy has refused to make that commitment.

In its most recent filing with DHEC in

December of 2014, Duke Energy makes a point of not making that commitment – this document is in your records, and I resubmitted it – and of leaving open the possibility of leaving the ash in an unlined pit in Darlington County.

As of now, every other community and river in this State has been assured that the utility – whether it's Santee Cooper, SCE&G, or Duke Energy itself at Lee – will take the steps necessary to protect the public and the communities' clean water. Only Darlington County and Lake Robinson are in limbo.

We hope, as at Lee, that Duke Energy will take these facts into account and recognize that it can maintain public confidence and trust in South Carolina only if it cleans up all its coal-ash storage in South Carolina by moving it to safe, dry, lined storage away from our rivers and lakes and out of our groundwater.

I would like to make one last point. Commissioner Hamilton is not here today, but after our last presentation I read an article where Duke Energy's spokesman took issue with Commissioner Hamilton's statement that Duke was then moving ash in North Carolina, and had been. I would like to

point out that Commissioner Hamilton was correct. He was correct. Duke has been moving ash from the Asheville site to the Asheville airport, to lined, dry storage at a structural fill project, for some time, and that project has been reported in the press.

It's been our position before, for other sites, and our position here, that if Duke Energy can move the ash to lined storage in Asheville, we know that Duke Energy has the ability to handle it, and skills, and engineering ability, to do the same thing in Darlington County also.

Thank you for this opportunity again to present and let you know what we have found in the public records at DHEC or, in a couple of instances, on the Internet. We don't have all the records yet, but that's what we have to date. Thank you. And I would be glad to answer any questions.

**VICE CHAIRMAN WHITFIELD:** Thank you, Mr. Holleman, for your presentation.

Commissioners, do we have any questions?  
Commissioner Randall?

**COMMISSIONER RANDALL:** Yeah, just one quick one. When you're talking about the low-level waste

that was sluiced, is there any radiation report on the lake, or has that been monitored anywhere so we know what's there?

**FRANK S. HOLLEMAN, III [SELC]:** If you look at that December 2014 report from Duke Energy, they say they have done some testing, perhaps of the groundwater or maybe elsewhere – and that they have not detected any radiation. That's what that report says.

We have not done any testing. I'm not aware that DHEC has done any independent testing. What DHEC has said is, as I read the documents – and you can read them, too – is that they want the ash characterized for that issue, as well as for others, to determine what is the best route to take. So DHEC has asked the same question you've asked, that is supposed to be answered in the course of the process.

**VICE CHAIRMAN WHITFIELD:** You finished, Commissioner Randall?

**COMMISSIONER RANDALL:** Yes, thank you. Sorry.

**VICE CHAIRMAN WHITFIELD:** Any further questions?

**COMMISSIONER FLEMING:** Yes –

**VICE CHAIRMAN WHITFIELD:** Commissioner

Fleming.

**COMMISSIONER FLEMING:** – Mr. Vice Chairman.

Thank you.

Thank you for coming before us today, again.

**FRANK S. HOLLEMAN, III [SELC]:** Thank you.

**COMMISSIONER FLEMING:** And this is pretty daunting, I guess, information that you've given us. But help me to understand this. You're saying that this information was known in the '80s by Progress Energy?

**FRANK S. HOLLEMAN, III [SELC]:** Well, the issue about the radioactive disposal was known either by CP&L or Progress – I don't know the timing of when the name changed.

**COMMISSIONER FLEMING:** But they're one and the same.

**FRANK S. HOLLEMAN, III [SELC]:** They are one and the same. And, yes, they were – they submitted – the documents that we have in the record are, by and large – a number of them were their own documents, yes.

**COMMISSIONER FLEMING:** And this information was known by DHEC.

**FRANK S. HOLLEMAN, III [SELC]:** The information – the 1980 disposal, the agencies were

not informed of. But After 1980, DHEC – as I read the documents, they notified DHEC of the subsequent ones, yes.

**COMMISSIONER FLEMING:** In – okay, during what time period?

**FRANK S. HOLLEMAN, III [SELC]:** The '80s and '90s.

**COMMISSIONER FLEMING:** So it was in the '80s and '90s.

**FRANK S. HOLLEMAN, III [SELC]:** Yes. Yes.

**COMMISSIONER FLEMING:** And the NRI was aware of this information?

**FRANK S. HOLLEMAN, III [SELC]:** The Nuclear Regulatory Commission, yes, was aware.

**COMMISSIONER FLEMING:** Or the NRC.

**FRANK S. HOLLEMAN, III [SELC]:** Yes. Yes. It was not, of the 1980 disposal, as I read the documents, but the subsequent disposals, yes. It became aware of the 1980 disposal later and entered into some kind of compliance agreement or requirement with the utility.

**COMMISSIONER FLEMING:** So all of this has been known in certain very important regulatory –

**FRANK S. HOLLEMAN, III [SELC]:** Yes.

**COMMISSIONER FLEMING:** – circles since the

'80s.

**FRANK S. HOLLEMAN, III [SELC]:** Yes, ma'am.

**COMMISSIONER FLEMING:** And we're just hearing about this today? I mean, I guess I'm having a problem just hearing Duke, Duke, Duke, when all of this was known so many decades ago – and, yes, thank you for bringing it to us today.

**FRANK S. HOLLEMAN, III [SELC]:** Right.

**COMMISSIONER FLEMING:** But I find it – it's hard to believe that this information wasn't dealt with in a much sooner timeframe.

**FRANK S. HOLLEMAN, III [SELC]:** And you would have to think that – you would have to think – this is speculation, of course – if the public had known about it, there would be objections to disposing of it in this way in Darlington County. You would think that.

**COMMISSIONER FLEMING:** Well, if this information is true and it was known in time, I would think that they would have taken steps to make sure – these regulatory departments or groups – would have taken steps to take care of this a lot sooner. That is what is really very bothersome to me, that –

**FRANK S. HOLLEMAN, III [SELC]:** What I –

**COMMISSIONER FLEMING:** – it has taken this long to come before us. So it was a problem that developed long before Duke and Progress Energy merged, correct?

**FRANK S. HOLLEMAN, III [SELC]:** Yes, ma'am, that's correct. And I'd say, as some of you may know, I've only been doing this kind of work for four years. I spent my career doing something else, just in a standard law firm in Greenville. So a lot of things come as a surprise to me, too, since I'm new to the enviro- – to this world. And what I would say is, what I see over and over again that it underscores to me, is the importance of the citizen and community involvement in all these issues. The government agencies are often understaffed, underfunded, there are political considerations, issues of just perspective that are different from the outside community looking in and from the inside looking out. And, to me, it underscores the importance of having public and community involvement in so many different issues. That's a lesson I have drawn from my experience in the last four years.

**COMMISSIONER FLEMING:** And so at the last hearing that we had, the *ex parte*, with Duke, when

DHEC had given them 90 days, that was strictly for the Lee Station?

**FRANK S. HOLLEMAN, III [SELC]:** Well, now, as of – in September of last year, they had received a Notice of Violation for Lee – for Robinson, but they had also previously received a Notice of Violation for Lee, as well. I think they had notices at that time for both.

**COMMISSIONER FLEMING:** But I mean, when they presented their plan for dealing with –

**FRANK S. HOLLEMAN, III [SELC]:** Oh, that was only Lee, yes, ma'am.

**COMMISSIONER FLEMING:** That was only Lee.

**FRANK S. HOLLEMAN, III [SELC]:** Yes, ma'am.

**COMMISSIONER FLEMING:** So –

**FRANK S. HOLLEMAN, III [SELC]:** They talked about Robinson. They presented to you on Robinson. But they did not have a resolution of Robinson at that time, and do not now.

**COMMISSIONER FLEMING:** So, they are, though – I mean, because, as I –

**FRANK S. HOLLEMAN, III [SELC]:** Right.

**COMMISSIONER FLEMING:** – recall, there were questions from the bench about why they were not – why they were hauling it rather than recycling it.

**FRANK S. HOLLEMAN, III [SELC]:** Yes.

**COMMISSIONER FLEMING:** And they were talking about the timeframe was so condensed that they didn't have time to deal with – this was the – what they were doing was what they could do within the timeframe they were allowed.

**FRANK S. HOLLEMAN, III [SELC]:** That was a – I can tell you the context in which that is usually said by Duke. That is a reference to the North Carolina statute, and that is – in other words, the North Carolina statute requires for their sites to be cleaned up in five years.

When we have negotiated settlements in South Carolina – for example, with Santee Cooper – we negotiated, I think, 10 years, and they would use their best efforts to get it done in seven or eight, to give them time to do recycling or something else that would make sense and still be safe, as well as putting it in a landfill. So when Duke has made that statement, that's usually a reference to the five-year timeline in the North Carolina state statute, I think, but I don't remember the exact context of your question.

**COMMISSIONER FLEMING:** They said, according to the transcript, "DHEC is requiring us to start

moving ash within 90 days."

**FRANK S. HOLLEMAN, III [SELC]:** Oh, really.  
From Lee.

**COMMISSIONER FLEMING:** Yes. So –

**FRANK S. HOLLEMAN, III [SELC]:** Well, at Lee, just to explain this, too, Lee has two – you can sort of think of the Lee coal ash in two contexts. There are some old coal-ash storage sites that are literally on the banks of the Saluda River. And what I mean is, if you got into a boat and went up the Saluda River, you would think you were looking at the bank, but, in fact, right there is that old coal-ash storage. And if a tree peels off in a major flood – a couple of trees peel off that bank – you could have a major breach. So the initial DHEC enforcement agreement deals with those riverfront old lagoons and does require those materials to be moved sooner to waste management facilities perhaps in Homer, Georgia, perhaps in Elgin.

Then there are the two water-filled lagoons at another storage site further away from the river. And what I expect – I don't know this, because we're not privy to all this information. But I expect Duke will look at whether those materials

can be put in an on-site storage facility, or recycled, or something else. But I think the initial removal is there on that actual riverfront area, which is very, very close to the river's edge.

**COMMISSIONER FLEMING:** So, are you talking to DHEC about this particular issue?

**FRANK S. HOLLEMAN, III [SELC]:** Yes, ma'am, we correspond – I think I put some correspondence in there that we have had with DHEC on issues, both – at Robinson this time, but we've also communicated with them about Lee.

**COMMISSIONER FLEMING:** Well, thank you, very much –

**FRANK S. HOLLEMAN, III [SELC]:** Thank you.

**COMMISSIONER FLEMING:** – for bringing this information forward.

**FRANK S. HOLLEMAN, III [SELC]:** Thank you.

**VICE CHAIRMAN WHITFIELD:** Commissioners?  
Commissioner Howard.

**COMMISSIONER HOWARD:** Mr. Holleman, thank you for your presentation. I guess my question is so obvious, I'm embarrassed to ask it, but what is DHEC's responsibility in this? I guess I'm thinking that groundwater monitoring, how far away

– how far away from the landfill do they monitor? Is there any contamination in groundwater that might lead to some public drinking water source? It's just confusing. I guess I agree with Commissioner Fleming in that; it's just – I just feel like there's some responsibility there, and I guess I hate to say it, but somebody must be negligent. Why are we not monitoring groundwater, and has there been any contamination that you know of in public drinking water?

**FRANK S. HOLLEMAN, III [SELC]:** I can't say – now, remember, we haven't been out there testing this. We don't have the right to put in wells. We might not have the financial resources to do all that. So, I can only tell you what I've seen in the records.

I'm not aware, from the records, of contamination from this site reaching public drinking water sources. It's my understanding – although I'm not 100 percent knowledgeable, it's my understanding Lake Robinson is not used for drinking water; it's a recreational and fishing lake. There may be – we have seen the experience in North Carolina around coal-ash sites of there being wells used either for drinking or for

nondrinking purposes, and for contamination being discovered only after these issues were raised. So I can't tell you there isn't any; I can only tell you I have not seen evidence of that.

Now, the groundwater contamination here, you should know this coal-ash site is very close to Lake Robinson. It's not like a mile away; it's like a matter of feet away from the lake. And as you'll see from the materials, it's undisputed – and, of course, that was a theory of the radioactive discharge – it's undisputed that groundwater flows into the lake, flows to the lake. So this testing, historically there were three or four wells, only, being tested at Robinson, until 2014, and none of them, as I read the materials, were close to the mouth of the lagoon where it would go toward the lake. In other words, the mouth of the lagoon is nearest the lake – which it should be obvious, I guess. They dam a little creek or whatever, and they build this reservoir, and they put the ash in here [indicating], most – the mouth of this big triangle, in a way, is down near the lake. When they put a well down there, that's when they hit the higher – the 115. And then when they did further testing, they hit 1100,

in December. Only recently, really, has adequate groundwater testing been done there. I think you'd have to say that's true. I mean, it's to the credit of DHEC today that it is being done. But I think it's a reasonable question for the utilities and for the government as to why it was not done in the past. I think that's a very good question.

As we have seen with coal ash – I have to admit, before I started working with the Southern Environmental Law Center four years ago, I didn't know much about coal ash, and I think the public haven't heard much about it either. And a lot of these documents were buried away. They were in the files, but nothing was happening. I mean, no action was being taken to require cleanups. They were just doing more testing – some of it, not adequate – and the public was unaware of it. Nobody was bringing it to the public's attention. So I think you ask a very good – a very logical, straightforward question about why, and why now.

**COMMISSIONER HOWARD:** Well, as you sit there today, are you satisfied with what will be done in the future? Do you feel like proper attention has been called to the problem and there'll be some solution forthcoming?

**FRANK S. HOLLEMAN, III [SELC]:** I am hopeful, but I'm not confident. And here's why I'm not confident. You heard all the stuff I laid out. I don't know that I know it all, but I found that much from just reading the documents over in the DHEC building. I find these facts very disturbing, and raise a lot of questions. I don't – and to me, they provide a lot of answers, not only raise questions.

But, as of December 2014, Duke was unwilling to commit to remove this ash. And that makes me concerned that they may not. Now, they're supposed to give DHEC an indication of what they're going to do by the end of this month. Sometimes those deadlines slip, so I don't know that that will happen.

I will say, DHEC has required the additional testing. It sent a Notice of Violation. It responded to our critique of the Dam Safety Report, and it also sent Duke notice that this ash had to come out of the groundwater. So I'm hopeful DHEC will maintain a strong line, so I'm hopeful but not convinced yet. I guess that would be my answer to you: I'm hopeful, but not convinced.

**COMMISSIONER HOWARD:** Thank you.

**FRANK S. HOLLEMAN, III [SELC]:** And I will say again, we had a very good – as I said at the beginning, we had a very good experience – in the long run, it took nine months – we had a good experience in the long run with Duke, and some very good people at Duke over the Lee facility. If the, I think, instincts of some of those people will prevail in the internals of the organization, we should have a good outcome. But I'm not confident of that, from what I read in writing.

**VICE CHAIRMAN WHITFIELD:** Thank you, Commissioner Howard.

Any further questions? Commissioner Fleming again?

**COMMISSIONER FLEMING:** Yes. I just wanted to – I'm just trying to understand. This situation seems so different, as I indicated earlier, than our other situation. You keep calling it "coal ash" but if the information you're talking about is correct, with the other material that you're talking about – if that is, indeed, the case – do you continue to call that coal ash? It may be mixed with coal ash –

**FRANK S. HOLLEMAN, III [SELC]:** Well, that's –

**COMMISSIONER FLEMING:** – but wouldn't that

require different methods of disposal?

**FRANK S. HOLLEMAN, III [SELC]:** Well, what they – yeah, I think you raise – the question you raise is well-founded. There are materials other than coal ash in this lagoon, this basin, or were put there. What DHEC is requiring is what they call an Ash Characterization Study, as you'll see in the materials, to see how much of it is left. We don't know how much of it has been diluted. It may have, you know, gone away into the lake or somewhere else, in the groundwater. You and I, the people in this room, don't know the answer to that question.

But hopefully, good – good – and accurate and adequate testing will tell the answer to that question. I'll point out, one of the scary things about coal ash is this: We use that as a shorthand, because you can only say so much in language and in writing, but if you read these permits, over time – and some of the old utility employees will tell you this – they put a lot of other stuff in these lagoons. They put boiler waste, slag, sometimes they put even sewage, sometimes they put – other materials were disposed into these lagoons. They were used as a general-

purpose – according to what we're told, and even the way some of the permits were written, they were allowed to put metal treatment waste and other things in there.

Some people make a big – emphasize the very point you made, that we need to be aware there are a lot of other materials – a lot of other materials have been put in some of these lagoons, apart from coal ash, itself. I just say "coal ash" because, I mean, you have to describe it somehow in speech, but you're right; it's all – different materials are in there, in every site; and here, we know about the sediment and other materials that are revealed in the Nuclear Regulatory Commission materials.

**VICE CHAIRMAN WHITFIELD:** You done, Commissioner Fleming?

**COMMISSIONER FLEMING:** Yes. Thank you.

**FRANK S. HOLLEMAN, III [SELG]:** But I'd say – emphasize one thing. The one thing we know, I think – common sense tells me this, and from what we've seen from other sites and what the utilities have done in South Carolina – the one place it shouldn't be is in an unlined pit in the soils of Darlington County – if y'all have been around that

part of Darlington and Chesterfield, those kind of soils – next to a public recreational and fishing lake. That's not – and in the groundwater there. That's not – if there's one place it shouldn't be, that's where it shouldn't be. Exactly how it should be stored, there may be issues as to that, but we know it needs to come out of there.

**VICE CHAIRMAN WHITFIELD:** I've got a question or two for you, Mr. Holleman. I think everybody else is just about done, and I've got a question or two for you. And one goes back to your first exchange with Commissioner Fleming; and it's not about Robinson, it's about the Lee facility that you talked about. The way I remember that, you were talking about the timeframe on that and she mentioned – she quoted to you a minute ago the 90 days. And I believe that was as a result of a consent order with DHEC, because if I remember, the way I remember it, and I think it might've been Commissioner Howard that asked the question about trucking it over into North Georgia, because it actually came out that it would be a high volume of trucks, I think – some big number, like 120 a day or 125 a day, going down I-85 to truck that. Is that the way you remember it? And do you remember

that they were working against a deadline because of the consent order, from that briefing?

**FRANK S. HOLLEMAN, III [SELC]:** No, I don't – I mean, I'll have to – I don't remember, specifically. My vague memory now – and I'd have to check the records – is that the actual consent agreement entered into with DHEC was entered into after the September 23rd briefing. That could be wrong, and I'll have to go back and look at the date. But maybe Duke already knew what it was going to say, even though it hadn't been signed, so they might have known what it was going to say at that point and even though they hadn't signed one yet. So maybe they knew the terms of it, even though it hadn't been officially signed. I just don't remember that right now, from the transcript.

**VICE CHAIRMAN WHITFIELD:** Okay. Another question, a little more specifically for you. On the Robinson plant that you presented today, one of your exhibits, you have the Notice of Violation from DHEC for September 9th.

**FRANK S. HOLLEMAN, III [SELC]:** Yes, yes.

**VICE CHAIRMAN WHITFIELD:** And you go on to talk about the level of arsenic there in that violation.

**FRANK S. HOLLEMAN, III [SELC]:** Yes.

**VICE CHAIRMAN WHITFIELD:** And then you, of course, mentioned just a few minutes ago about the level being later – three months later, in December – at 1100. It had gone up to 1100, I think you stated just a few minutes ago.

**FRANK S. HOLLEMAN, III [SELC]:** Yes.

**VICE CHAIRMAN WHITFIELD:** My question to you is – and all I can see is this one page you've got; it's kind of a little small on my copy.

**FRANK S. HOLLEMAN, III [SELC]:** Right.

**VICE CHAIRMAN WHITFIELD:** But the last line or next-to-the-last line says Duke Energy must submit a work plan to DHEC by October 10th, and then it finishes that sentence and I can't see what's on the next page. But what can you tell us is the status of that DHEC violation? Can you – what is the status, since you, you know, have brought this to us, and I was unaware of it at the briefing in September or just a few days, or a week or so after that. What is the status of that violation?

**FRANK S. HOLLEMAN, III [SELC]:** I can tell you what I know, and I may not have the most current information. But I do know that, as I recall from going through the documents – and this is based on

memory – that Duke had submitted to DHEC a proposed plan for characterizing the ash or doing the investigation. And subsequent to that – and we have this cited here – they have a report, actually, of, in December, Robinson Ash Basin Closure Investigation.

[Reference: Presentation Slide 5]

And as I said, my understanding is, by the end of this month, Duke is supposed to present to DHEC its proposal for how to deal with the closure that would include how to deal with the coal ash, and I suppose – to my mind – that would include how to deal with the arsenic contamination.

I also know that, as I said before, DHEC has sent them a letter saying that the ash has to be out of the groundwater. And that is in the materials – not on the PowerPoint, but the materials we submitted to the Commission. That's what I know right now.

**VICE CHAIRMAN WHITFIELD:** So, basically you're saying this is kind of an open –

**FRANK S. HOLLEMAN, III [SELC]:** Yes, sir, that's my understanding.

**VICE CHAIRMAN WHITFIELD:** – open Notice of Violation or open document of DHEC, so to speak.

**FRANK S. HOLLEMAN, III [SELC]:** Yes, sir, that's my understanding.

**VICE CHAIRMAN WHITFIELD:** Thank you, sir. That's all I have. I think our attorney, Joseph Melchers, would like to ask a few questions now.

**FRANK S. HOLLEMAN, III [SELC]:** Sure.

**MR. MELCHERS:** Thank you, Mr. Chairman.

Mr. Holleman, you mentioned a report that discussed at 4,000-foot wave. Was that the Dam Safety Report?

**FRANK S. HOLLEMAN, III [SELC]:** Yes, sir, it's a –

**MR. MELCHERS:** Could you specifically identify it?

**FRANK S. HOLLEMAN, III [SELC]:** Yeah. I submitted it. It's in the record.

**MR. MELCHERS:** Right.

**FRANK S. HOLLEMAN, III [SELC]:** And I believe it is a report prepared by AMEC.

**MR. MELCHERS:** So that would be the 9/30/2014 Flood Evaluation –

**FRANK S. HOLLEMAN, III [SELC]:** Yes, I believe that's it.

**MR. MELCHERS:** – AMEC?

**FRANK S. HOLLEMAN, III [SELC]:** I believe

that's it, yes, sir.

**MR. MELCHERS:** Okay. Thank you. And if you know, was the disposal of the low-level radioactive material ever permitted by DHEC?

**FRANK S. HOLLEMAN, III [SELC]:** This is what I understand. Now, keep in mind, we do not have all the documents. We've requested them, but we haven't gotten them all. I don't mean they're being hidden from us; some of them are old, and we haven't received them.

It's my understanding that DHEC never granted a permit for this discharge, but that DHEC did provide approvals by letter for the discharges, except the 1980, the 1980 one. My understanding, from reading the 1983 document that is a part of the PowerPoint, is that in 1980, no agencies were notified. My understanding is, on one or more occasions, DHEC did grant letter approval indicating they did not object to, or approved of at least one or more of the other disposals. I can't tell you sitting here today they did every one –

**MR. MELCHERS:** Right.

**FRANK S. HOLLEMAN, III [SELC]:** – because we don't have all the documents. But at least on one

or more occasions, they did.

**MR. MELCHERS:** And the 1980 event, you said, was later dealt with through a consent agreement or a compliance action?

**FRANK S. HOLLEMAN, III [SELC]:** I can only tell you what is in that 1983 document that is part of the PowerPoint and it's also in the record. It's prepared by the utility and it describes what happened in 1980. And I believe they say – I don't know whether the term is "consent agreement" or "enforcement" or what it is, but the outcome was they agreed, going forward, they would obey the law. And you'll see that; it's in the materials.

**MR. MELCHERS:** Okay, thank you.

**VICE CHAIRMAN WHITFIELD:** Thank you, Mr. Melchers.

If there are no further questions, Mr. Holleman, we thank you for your presentation.

**FRANK S. HOLLEMAN, III [SELC]:** Thank you.

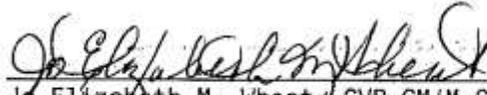
**VICE CHAIRMAN WHITFIELD:** And we thank you for being with us. And this allowable *ex parte* briefing is adjourned.

[WHEREUPON, at 3:00 p.m., the proceedings in the above-entitled matter were adjourned.]

C E R T I F I C A T E

I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had in an Allowable Ex Parte Proceeding held before THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA in Columbia, South Carolina, according to my verbatim record of same.

IN WITNESS WHEREOF, I have hereunto set my hand, on this the 10<sup>th</sup> day of April, 2015.

  
Jo Elizabeth M. Wheat, CVR-CM/M-GNSC  
Hearings Reporter, PSC/SC  
My Commission Expires: January 27, 2021.