

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

HEARING #11-11207

JUNE 21, 2011

2:30 P.M.

**ALLOWABLE EX PARTE BRIEFING**

*REQUESTED BY PROGRESS ENERGY CAROLINAS, INC.* - Update  
Concerning Proposed EPA Regulations

**TRANSCRIPT OF  
PROCEEDINGS**

**COMMISSIONERS PRESENT:** John E. 'Butch' HOWARD, *CHAIRMAN*,  
David A. WRIGHT, *VICE CHAIRMAN*; and COMMISSIONERS Elizabeth B.  
'Lib' FLEMING, G. O'Neal HAMILTON, Randy MITCHELL, Swain E.  
WHITFIELD, and Nikiya 'Nikki' HALL

ADVISOR TO COMMISSION: Joseph Melchers, Esq.

**STAFF:** F. David Butler, Jr., Senior Counsel; B. Randall Dong, Esq.,  
and Rebecca Dulin, Esq., Legal Staff; Phil Riley, Lynn Ballentine, and  
William O. Richardson, Advisory Staff; Jo Elizabeth M. Wheat, CVR-CM-  
GNSC, Court Reporter

**APPEARANCES:**

*LEN S. ANTHONY, ESQUIRE, along with CAROLINE CHOI*  
*[EXECUTIVE DIRECTOR/ENVIRONMENTAL SERVICES & STRATEGY],*  
*presenter, representing PROGRESS ENERGY CAROLINAS, INC.*

*JEFFREY M. NELSON, ESQUIRE, representing the OFFICE OF*  
*REGULATORY STAFF*

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Please note the following inclusions/attachments to the record: PowerPoint presentation (PDF); Submitted draft letters for Commissioners' consideration and other supporting information

P R O C E E D I N G S

1  
2           **CHAIRMAN HOWARD:** Good afternoon -- are the  
3 microphones working? Good afternoon, and welcome  
4 to this ex parte briefing.

5                   [WHEREUPON, discussion was had off the  
6 record]

7           **CHAIRMAN HOWARD:** Welcome to the ex parte  
8 briefing. At this time I'll turn it over to  
9 Attorney Melchers to read the docket.

10           **MR. MELCHERS:** Thank you, Mr. Chairman and  
11 Commissioners. We are here pursuant to a nice  
12 request for an allowable ex parte briefing that was  
13 filed by Progress Energy Carolinas, Inc., to be  
14 held today, June 21, at 2:30, here in the  
15 Commission's hearing room. And the subject matter  
16 to be discussed at the briefing is: Update  
17 concerning proposed EPA regulations. Thank you,  
18 Mr. Chairman.

19           **CHAIRMAN HOWARD:** Mr. Anthony, your turn on  
20 stage.

21           **MR. ANTHONY:** Thank you, Mr. Chairman, members  
22 of the Commission. Thank you once again for  
23 allowing us to appear before you. Today we'd like  
24 to update you and also ask for your help in  
25 addressing two proposed Environmental Protection

1 Agency rules that will have a significant impact on  
2 our operations.

3 The first one has to do with the water that  
4 our facilities take in, in order to provide cooling  
5 to the facilities as they generate electricity,  
6 known as the 316(b) proposed rule. The other has  
7 to do with air emissions, particularly associated  
8 with mercury.

9 We have with us today, to make the  
10 presentation, Caroline Choi. She is the executive  
11 director of our Environmental Services & Strategy  
12 Department, for the entire Progress Energy System,  
13 so a huge undertaking. And with that, I'll turn it  
14 over to Caroline to walk you through how those two  
15 rules may affect us, and what we might ask of you  
16 -- while she's getting seated and set -- we do have  
17 in hard-copy form two, what I'll call, form or  
18 draft letters that we would like to leave with you,  
19 that, if you find it appropriate to submit to the  
20 EPA regarding these two issues, then I'll provide  
21 that information to the court reporter once the  
22 presentation is concluded. Thank you.

23 [Reference: PowerPoint Slide 1]

24 **MS. CHOI:** Thank you, Len. And thank you.  
25 Good afternoon.

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[Reference: PowerPoint Slide 2]

So, I'm here to talk about two rules, as Len mentioned, the 316(b) Rule and the Utility MACT Rule, and just give you a timeline of those proposals and impact on our facilities, our initial areas of concern with those proposals, and take your questions.

[Reference: PowerPoint Slide 3]

Just to start with, the utility industry, as you know, has had transformation underway with significant investments they have made over the last few years, and continuing to be made, improving environmental performance. We have a convergence of a lot of new environmental regulations coming down the pathway. And those costs of those controls to meet those environmental requirements will be borne by our customers. We believe there's a better way to manage those regulations with manageable timelines that allow for optimized decision-making, when we look at building our plans for those facilities.

[Reference: PowerPoint Slide 4]

This is just a graphic of the rules that we see coming down the pike from the US Environmental Protection Agency. I'll be talking to you about

1 that first one, the EGU MACT, the Electric  
2 Generation Unit MACT proposal, and then one of the  
3 water rules, the 316(b), new guidelines. Most of  
4 these rules, as you can see, have timelines where  
5 the compliance has been scripted over the next  
6 several years and will require a potentially huge  
7 amount of capital to comply with those rules.

8 [Reference: PowerPoint Slide 5]

9 So I'm going to start with the Electric  
10 Generating Utility MACT -- or as EPA calls it, the  
11 Air Toxics Rule.

12 [Reference: PowerPoint Slide 6]

13 This proposal, MACT -- maximum achievable  
14 control technology -- are a standard, proposed  
15 technology standards, to address hazardous air  
16 pollutants from coal- and oil-fired power plants.  
17 This particular proposal is for utilities, but the  
18 EPA finalized a proposal earlier in the year for an  
19 Industrial Boiler MACT, and they've finalized other  
20 MACT standards. And the standard is established by  
21 looking at the top-performing 12 percent of the  
22 source category. In this case, it would be the  
23 coal- and oil-fired generators.

24 The proposal was released on March 16th, and  
25 the 60-day comment period began on May 3rd, so that

1 means comments are due by July 5th, although I will  
2 say we just heard today, based on requests that  
3 have come in from many states and others, including  
4 the industry, the EPA has extended the comment  
5 period by another 30 days, so now the comments are  
6 due by August 2nd. Final rules are due in November  
7 of 2011. Under a court settlement, the EPA may  
8 require a meeting. Under the Clean Air Act, there  
9 is a three-year compliance timeframe, and so in  
10 this case, the rules are due in November; they  
11 would go into effect 60 days after publication in  
12 the Federal Register, which we expect sometime in  
13 late 2011, which would put compliance beginning  
14 sometime in the first quarter of 2015. And under  
15 their proposal, they would allow case-by-case one-  
16 year extensions, which would get us to the first  
17 quarter of 2016.

18 [Reference: PowerPoint Slide 7]

19 These are the aspects of the proposal that are  
20 covered by the Utility MACT, the first being  
21 mercury, the numeric emission limit that would  
22 prevent 91 percent of mercury in coal from being  
23 released to the air. This is the focus of the EPA  
24 proposal, although when they talk about the health  
25 effects, the benefits are primarily in the non-

1 mercury metallic pollutants -- the arsenic and  
2 chromium -- because they're putting a limit for  
3 particulate matter -- that's what "PM" stands for,  
4 "particulate matter." They're also addressing acid  
5 gases, organic air toxics.

6 The proposal includes startup and shutdown  
7 periods, so the concern that we have, a difference  
8 we had, is the inclusion of startup and shutdown  
9 periods and the measurement over a 30-day rolling  
10 average -- I know I'm starting to get into  
11 technical details here -- but, measurement over a  
12 30-day rolling average is going to be problematic  
13 including those periods, because during those  
14 startup and shutdown periods, we -- sorry.

15 **MR. MELCHERS:** We're having trouble hearing --

16 **MS. CHOI:** Okay.

17 **MR. MELCHERS:** -- with the sound system.

18 **MS. CHOI:** All right. I can speak up louder.  
19 During the startup and shutdown period, the air  
20 pollutant control equipment did not maximize  
21 because it was not at maximum temperature in the  
22 boiler, so we're not going to have maximum rule  
23 efficiency of some of these pollutants when you  
24 include those periods. We prefer to have those  
25 startup and shutdown periods be excluded and work

1 practice standards as noted here that establishes  
2 that.

3 [Reference: PowerPoint Slide 8]

4 This is a timeline for the proposal. As you  
5 can see here, proposed is mark number one;  
6 finalized later in the year; compliance beginning  
7 in 2012 -- or, goes into effect in 2012; compliance  
8 beginning in the first quarter of 2015. A one-year  
9 extension possible to first quarter of 2016, and  
10 then the Clean Air Act does allow a Presidential  
11 two-year extension to be approved. It has been  
12 utilized in only one case in the past, so we're not  
13 counting on getting a two-year extension, but those  
14 cases are for when technology is not available and  
15 for national security reasons.

16 [Reference: PowerPoint Slide 9]

17 This is a slide we used in presentations for  
18 the investment community. This just shows the  
19 entire enterprise of Progress Energy under the  
20 proposed Utility MACT. We have a total of 8,900  
21 megawatts impacted by the proposed rule. First  
22 would be announced retirements in the North  
23 Carolina plan we did a couple of years ago: 18  
24 percent of the megawatts that are going to be  
25 retired are not impacted by the proposal. Our

1 well-controlled coal, those units that have SCRs  
2 and scrubbers, account for another 55 percent of  
3 the megawatts in the enterprise. And so what's  
4 left that's most significantly impacted is the 27  
5 percent coal- and oil-fired units that have not  
6 been controlled.

7 **MR. RICHARDSON:** Ms. Choi, let's try this and  
8 see if it works [indicating].

9 **MS. CHOI:** Is that better? [Indicating] is  
10 that better?

11 **MR. MELCHERS:** Less echo.

12 **MS. CHOI:** Is that better?

13 **MR. MELCHERS:** Yeah.

14 **MS. CHOI:** Okay. For Progress Energy  
15 Carolinas, we have a total of 1,612 megawatts that  
16 have been announced for retirement, and control of  
17 3,400 megawatts. And so 188 megawatts of coal  
18 units left to be controlled, or mostly impacted by  
19 this rule, is really -- which is the Robinson  
20 plant.

21 [Reference: PowerPoint Slide 10]

22 So if you look here, as you know we have put  
23 controls on our Asheville, Mayo, and Roxboro  
24 facilities. That was primarily driven by the North  
25 Carolina Clean Smokestack Act. The addition of

1 possible controls are activated carbon injection or  
2 sorbent to address the mercury emissions coming  
3 from the power plant, and a fabric filter, also  
4 often called a baghouse, to capture the additional  
5 particulates as a result of that sorbent going into  
6 the boiler.

7 And then, as I note here, we need more data to  
8 add comfort with the continuous compliance, the 30-  
9 day continuous compliance, with the proposed rule.

10 The Robinson plant down in Florence, it does  
11 not have post-combustion controls, so our options  
12 there are to add a dry scrubber with activated  
13 carbon injection, a fabric filter. While an SCR --  
14 selective catalytic reduction -- is not necessary  
15 for this proposal, it's likely going to be  
16 necessary for additional EPA rules that were noted  
17 in that graphic.

18 Another option at Robinson would be to convert  
19 it back to a natural-gas-fired unit, which it was  
20 in the past, or to retire that unit. And we're  
21 looking at all those options right now.

22 [Reference: PowerPoint Slide 11]

23 Our primary issues with the MACT are:  
24 providing adequate time for compliance. Three  
25 years is a difficult time period. It's a national

1 rule. The clock starts ticking the minute this  
2 rule goes final. We will be competing for  
3 resources across the country: That's for the  
4 contractors, for the vendors. And our experience  
5 with post-combustion controls -- those controls  
6 that we've installed at Roxboro, Mayo, Asheville --  
7 we just believe that 36 months is not adequate to  
8 install the number of controls that we'll be  
9 seeking across our system. An average for our  
10 scrubber projects was 47 months from beginning to  
11 end, and the average for our SCR projects was about  
12 37 months. So, when you -- we believe that EPA is  
13 only providing time for the actual construction and  
14 not for the engineering, design, procurement that  
15 is also necessary for each project.

16 Again, the difficulty with continuous  
17 compliance, the 30-day rolling average; the  
18 inclusion of startup and shutdown periods, which  
19 were not included in the Industrial Boiler MACT,  
20 and we would like those excluded just as they did  
21 in that proposal; and the concerns with the  
22 continuous emission monitors. That's what the CEMs  
23 are. We do have continuous emission monitors  
24 installed at several of our facilities. There's  
25 not been a significant amount of work done since

1 the mercury rule from the Bush Administration was  
2 vacated, and we have seen in the data some  
3 anomalies, such as their recording mercury  
4 emissions that are greater than the mercury content  
5 in the coal, for instance, and so we're just  
6 concerned about their ability to adequately capture  
7 mercury concentrations. We're talking mercury --  
8 the concentration of mercury are in pounds per  
9 thousand BTU, so it's just much smaller  
10 concentrations of mercury than SO<sub>2</sub> and NO<sub>x</sub> and other  
11 traditional air pollutants, and more difficult,  
12 therefore, to capture and measure on a continuous  
13 basis.

14 Non-mercury hazardous air pollutants, we  
15 believe, should be subject to further study before  
16 regulation. The EPA has not put forward the  
17 analysis to demonstrate that there is a hazard that  
18 is needed to be regulated.

19 Area source limits: Area source limits are  
20 provided for under the Clean Air Act. They are, of  
21 course, sources that, in total, emit less than 25  
22 tons per year of a hazardous air pollutant. And  
23 those facilities, such as Asheville and Mayo, where  
24 you have controls, there is a potential opportunity  
25 that we would be emitting less than 25 tons per

1 year of hazardous air pollutants, and we believe we  
2 then would not have to do additional work, and then  
3 reduce the overall cost, and overall cost to the  
4 customer.

5 Compliance with the non-mercury metals  
6 standard: This is particulate matter. It would be  
7 another more technical issue, but EPA, in their  
8 proposal, talks about total particulates, both  
9 condensable particulates and filterable  
10 particulates. Filterable particulates are captured  
11 with a continuous emission monitor. They're  
12 measured on a continuous basis. But condensable  
13 particulates are not captured with a continuous  
14 emissions monitor. We believe that it would be  
15 difficult to demonstrate compliance on a continuous  
16 basis, since some of those emissions would be  
17 captured in a stack test and others in a continuous  
18 emission monitor would have to be added to  
19 demonstrate compliance. So we believe that we  
20 should just focus on the filterable portion of  
21 particulates on an ongoing basis.

22 [Reference: PowerPoint Slide 12]

23 I don't know if you have any questions on the  
24 MACT before I move to 316(b)?

25 **CHAIRMAN HOWARD:** Any questions?

1                   **COMMISSIONER FLEMING:** Yes, Mr. Chairman.

2                   **CHAIRMAN HOWARD:** Commissioner Fleming.

3                   **COMMISSIONER FLEMING:** I wanted to go back --  
4 if you would go into a little bit more detail about  
5 your concern with continuous compliance. And I  
6 believe you said starting up and --

7                   **MS. CHOI:** Yes.

8                   **COMMISSIONER FLEMING:** -- cutting off.

9                   **MS. CHOI:** Yes.

10                                   [Reference: PowerPoint Slide 11]

11                   EPA, in their comments and in comments after  
12 the rule was proposed, believe that most coal-fired  
13 units are operated base-load and therefore that  
14 they don't cycle. But our facilities and a number  
15 of facilities across the country actually do cycle  
16 their coal-fired power plants, so they don't just  
17 come up and run at 100 percent capacity. And  
18 during those startup and shutdown periods, we are  
19 not maximizing the removal efficiency of the  
20 control equipment because the heat rate at that  
21 time isn't maximized. You know, it's not as hot as  
22 it would be when you're running 100 percent of the  
23 time, and therefore we're allowing more pollutants  
24 into the air.

25                                   So what they generally had done in the past

1 was to have a work practice standard for those  
2 periods: startup and shutdown periods, you exclude  
3 that; you're only measuring when you're running at  
4 100 percent, and then you have work practices on  
5 what you're supposed to do during the startup and  
6 shutdown periods. We believe that's the  
7 appropriate way to address those emissions on an  
8 ongoing basis.

9 **COMMISSIONER FLEMING:** Because it's not as  
10 easy to control --

11 **MS. CHOI:** Right.

12 **COMMISSIONER FLEMING:** -- and maintain?

13 **MS. CHOI:** Right, exactly.

14 **COMMISSIONER FLEMING:** Okay. And let me just  
15 ask you this. When you talk about three years is  
16 not adequate time, at the NARUC meeting there was a  
17 panel -- in fact, Mr. Johnson was a member of that  
18 panel, and I remember him saying that, too, and the  
19 EPA would say, "But you've known about this for ten  
20 years." But you didn't -- but the exact rulings  
21 were not out there -- is that correct?

22 **MS. CHOI:** Exactly.

23 **COMMISSIONER FLEMING:** -- saying that's what  
24 you're dealing -- that's your reasoning for the  
25 lack of adequate timing?

1           **MS. CHOI:** Right. We -- there are those who  
2 argue that we've known a MACT standard was coming  
3 and we could've taken action to go ahead and  
4 address our mercury emissions. And while we've  
5 known that a MACT standard was coming, we weren't  
6 certain what the number would be: What is the  
7 emissions limit that EPA would be proposing and  
8 establishing on the industry? And for that reason,  
9 we couldn't, with certainty, add controls that we  
10 could guarantee would meet that standard and then  
11 go and ask, particularly, for cost recovery of that  
12 technology, when we weren't certain that we were  
13 going to meet the requirements that we knew were  
14 coming from the EPA.

15           So we had to wait until -- we really do have  
16 to wait until we see the final number, before we  
17 can actually finalize plans to meet the  
18 requirements that we anticipate.

19           **COMMISSIONER FLEMING:** And what do you think  
20 is an adequate time?

21           **MS. CHOI:** We would like at least 48 months,  
22 because that has been the minimum for the more  
23 significant control technology that we've had to  
24 establish in the past. And we would like the  
25 opportunity for additional flexibility. So that

1 two years that the President is allowed to provide,  
2 we'd like to have some clarity on how we would go  
3 about getting the additional two years. EPA's  
4 proposal of a one-year extension, while that is  
5 helpful, it would be most helpful to have that in  
6 advance, to know that we actually have four years.  
7 We don't make plans for three years and a grace  
8 period -- because we might not get the grace. They  
9 just say they'll make a decision later, once you  
10 start it, and we really need to -- because we're so  
11 compliance-driven -- make a plan that we know is  
12 going to assure compliance with those requirements.

13 So we'd like the four years in advance, when  
14 they finalize the rule, knowing that we have 48  
15 months, as well as an opportunity to know what  
16 would be necessary to get an additional two years,  
17 if needed, to meet the requirements.

18 **COMMISSIONER FLEMING:** And did I understand  
19 you that you're concerned that there could be a  
20 backlog on the equipment necessary to meet --

21 **MS. CHOI:** And these --

22 **COMMISSIONER FLEMING:** -- these standards?

23 **MS. CHOI:** -- there's going to be a  
24 significant demand for control technologies, and  
25 whether the vendors can meet that demand, as well

1 as contracting needs for the workforce to install  
2 that technology. We contract that work; we don't  
3 install that with our own workforce. There's a  
4 limited number of top-tier contracting firms to do  
5 this work, that are known by the industry, and the  
6 demand can be very high for those services. There  
7 could be a backlog of excess work and not enough  
8 suppliers.

9 **COMMISSIONER FLEMING:** But you think 48 months  
10 would take care --

11 **MS. CHOI:** 48 and --

12 **COMMISSIONER FLEMING:** -- of that.

13 **MS. CHOI:** -- even longer, if needed. That's  
14 right.

15 **CHAIRMAN HOWARD:** Commissioner Wright.

16 **VICE CHAIRMAN WRIGHT:** Hello.

17 **MS. CHOI:** Hi.

18 **VICE CHAIRMAN WRIGHT:** The previous slide to  
19 this one.

20 **MS. CHOI:** [Indicating.]

21 [Reference: PowerPoint Slide 10]

22 **VICE CHAIRMAN WRIGHT:** Talk to me about -- I  
23 just want to be sure I understand why it's in the  
24 order that's it's in on the Robinson part of the  
25 slide. I mean, is it -- am I to infer from the

1 slide that there's -- to convert back to natural  
2 gas, that's obviously -- is that like a second  
3 choice to all this stuff? Is it a first choice?  
4 Is it -- I mean, how would you determine -- what is  
5 it going to take for you to determine which way to  
6 go?

7 **MS. CHOI:** Please don't read into that that  
8 there is a tiering into those options there.

9 **VICE CHAIRMAN WRIGHT:** That's what I was --

10 **MS. CHOI:** They are all equal at this time,  
11 and the selection would certainly be driven by the  
12 cost to implement these.

13 **VICE CHAIRMAN WRIGHT:** Okay. And are you  
14 waiting until the rules come out before you would  
15 make such a decision or are you in that process  
16 now?

17 **MS. CHOI:** We're looking at these options now  
18 to determine, high-level, what those costs would  
19 be. We're not doing the detailed engineering right  
20 now at Robinson, but we're certainly looking at the  
21 natural gas supply availability to go to the plant  
22 and those type of things, to make a decision pretty  
23 quickly once the rule goes final.

24 **VICE CHAIRMAN WRIGHT:** Right. Okay, thank  
25 you.

1                   **CHAIRMAN HOWARD:** Commissioner Hamilton.

2                   **COMMISSIONER HAMILTON:** Thank you, Mr.  
3 Chairman. Ma'am, has Progress done any work on  
4 anticipating the additional costs that this is  
5 going to put on ratepayers for these new  
6 requirements that are coming down the line?

7                   **MS. CHOI:** We've done some high-level  
8 estimates on what -- not on rate impact. My folks  
9 don't do rate impact. What we have done are high-  
10 level estimates of what the technology may cost to  
11 do the work.

12                   **COMMISSIONER HAMILTON:** I mean, could you tell  
13 us?

14                   **MS. CHOI:** I'm trying to remember what the --  
15 I didn't bring those cost figures with me.  
16 Do you remember that?

17                   **COMMISSIONER HAMILTON:** Calling on Bail-Out  
18 Len?

19                   [Laughter]

20                   **MS. CHOI:** Well, he was with me the last time  
21 I talked about this, and I'm trying to remember  
22 what they were, because I had them written down in  
23 my notes.

24                   **COMMISSIONER HAMILTON:** That's okay.

25                   **MS. CHOI:** I apologize, I didn't bring them

1 with me.

2 **COMMISSIONER HAMILTON:** Thank you. That's  
3 fine. Thank you, very much.

4 **VICE CHAIRMAN WRIGHT:** Mr. Chairman, I have a  
5 follow-up.

6 **CHAIRMAN HOWARD:** Commissioner Wright.

7 **VICE CHAIRMAN WRIGHT:** I do have a follow-up  
8 to Commissioner Hamilton's --

9 **MR. ANTHONY:** Caroline can correct me if I'm  
10 wrong on this, but we can get you those numbers,  
11 but because we have not publicly disclosed those to  
12 the investment community, there are certain -- I  
13 guess we would have to file an AK or something, to  
14 disclose those to the world, when we provide them  
15 to you, so if there's a way to do that  
16 confidentially, that might be helpful.

17 **MS. CHOI:** Yeah.

18 **MR. ANTHONY:** We'll get you the information  
19 you need. Just want to make you aware that, since  
20 it is -- it is a large number, and that would  
21 impact the investing community's analysis of our  
22 stock.

23 **COMMISSIONER HAMILTON:** Thank you.

24 **CHAIRMAN HOWARD:** Thank you.

25 **VICE CHAIRMAN WRIGHT:** I can't tell you where

1 I read this or heard this or if it -- from meeting  
2 to meeting, I don't know -- but somewhere I  
3 believe it's sticking in my head that they said, on  
4 average, it was -- these rules the EPA was talking  
5 about, it's been mentioned, would increase the  
6 average customer bill 10 percent or something like  
7 that. But that's really not true, and I want to  
8 get your opinion on this, your feedback on this,  
9 because a lot of the places that are going to be  
10 impacted with this, it's more -- it's regional,  
11 it's heavier coal-using --

12 **MS. CHOI:** Yeah.

13 **VICE CHAIRMAN WRIGHT:** -- states or regions.  
14 So the customer impact that will be -- the customer  
15 will be impacted heavier in regions like the  
16 Southeast and the South, as opposed to some other  
17 region of the country that's hydro or something  
18 like that. So it could be a lot, I guess, is --

19 **MS. CHOI:** It could be a lot higher than 10  
20 percent in certain parts of the country. The  
21 average -- to your point, that's right --  
22 nationally may be 10 percent, but in parts of the  
23 country that are more dependent on coal, which  
24 would be the Southeast and certainly the Midwest,  
25 you're going to see -- you could see higher rate

1 impact than that. The EPA has knowledge that this  
2 is the most expensive rule they've ever  
3 promulgated, close to \$10 billion a year, estimated  
4 cost, by the EPA.

5 **VICE CHAIRMAN WRIGHT:** I just don't think that  
6 the public at large has been educated enough. They  
7 hear averages and they hear, you know, these  
8 things, but they really don't know, and I -- you  
9 know, somehow the word has got to get out better, I  
10 think, because, you know, I'm just now  
11 understanding some of that, you know, and it scares  
12 me, too.

13 **MS. CHOI:** Yeah. Could be a pretty hefty  
14 price tag.

15 **CHAIRMAN HOWARD:** Commissioner Hall.

16 **COMMISSIONER HALL:** Thank you. Hi, Ms. Choi.  
17 Can you explain -- I got lost with the particulate  
18 matter, or the compliance you would more prefer.  
19 Would you explain that to me again, please?

20 **MS. CHOI:** Let me go back to this  
21 [indicating].

22 [Reference: PowerPoint Slide 7]

23 There are, in the Clean Air Act, about 189  
24 hazardous air pollutants that are listed. So this  
25 rule is meant to address all 189 hazardous air

1 pollutants, and rather than have a limit for each  
2 one and a measurement requirement for each  
3 hazardous air pollutant, EPA has bucketed the  
4 pollutants into these categories: mercury, acid  
5 gases, non-mercury metals, and then organic air  
6 toxics. And in their proposal, they are asking us  
7 to regulate our particulate matter emissions as a  
8 surrogate to address all the non-mercury metal  
9 pollutants.

10 We are in support of that idea of surrogates.  
11 We certainly don't want to have to measure 189  
12 different hazardous air pollutants. Our concern is  
13 that the particulate matter -- and so, the  
14 particular matter certainly had the health effect,  
15 and when EPA had done their health estimates, over  
16 99 percent of the health benefit associated with  
17 this rule is due to the regulation of particulate  
18 matter, not the regulation of mercury -- even  
19 though they talk about mercury, primarily, when  
20 they talk about this rule.

21 We believe that the Clean Air Act does provide  
22 other ways to regulating particulate matter. They  
23 have an ambient air quality standard for  
24 particulates, and these other tools in the Clean  
25 Air Act toolbox provide more time for states and

1 regulated entities -- not just utilities, but other  
2 manufacturing -- to comply with those standards,  
3 instead of just three years.

4 The total particulate matter requirement would  
5 require us to measure both filterable particulates,  
6 which are captured in a continuous emission  
7 monitor, and condensable particulates, and those  
8 are the kind of particulates that come from like a  
9 scrubber, the water, and we don't measure those on  
10 a continuous basis. We can do a stack test, which  
11 is an instantaneous test at that time, to determine  
12 what our condensable particulates are. To try to  
13 achieve a total particulate matter limit on an  
14 ongoing basis doesn't make sense to us, because you  
15 have a continuous emission monitor that captures  
16 the vast majority of particulates and the ones that  
17 might be hazardous. We really don't see  
18 concentration levels in condensable particulates  
19 that should be of concern to the EPA.

20 **COMMISSIONER HALL:** Thank you.

21 **COMMISSIONER MITCHELL:** I have one.

22 **CHAIRMAN HOWARD:** Commissioner Mitchell.

23 **COMMISSIONER MITCHELL:** Yes, ma'am, I'm  
24 looking on page 13, and it's there -- your slide 13  
25 -- you talk about the final rules, and they're due

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2012?

**MS. CHOI:** This is 316(b).

**COMMISSIONER MITCHELL:** That's what was my question. I saw that at the top, but I wanted to make sure. So that's the only concern in that one particular rule, not the other rules?

**MS. CHOI:** Right.

**COMMISSIONER MITCHELL:** Okay. What about -- is there a deadline for all these rules? Is there any timeframe that you must be working now to know that you have to meet requirements for the final deadline for all these rules? Or where do we stand?

**MS. CHOI:** Some of these rules -- sorry.

[Reference: PowerPoint Slide 4]

Some of these rules have court-ordered or court-approved settlement timelines, like the MACT and 316(b). Some of these, like the criteria pollutants, they have schedules but they're not subject to a court-approved deadline. And some of these are just announced schedules that the EPA has made, but, again, aren't subject to court approval. So we are anticipating all these rules; some of these are, again, required by court settlement for EPA to finish by a date certain, and therefore,

1 compliance is triggered beginning on when those  
2 rules go into effect.

3 **COMMISSIONER MITCHELL:** And my next question,  
4 are parts of these rules or all of these rules, the  
5 wording, cost-effective or at no cost? Could you  
6 just explain that, I mean --

7 **MS. CHOI:** Yeah.

8 **COMMISSIONER MITCHELL:** -- or is that really  
9 with the mercury part, or what? I guess what I'm  
10 saying is, do you have rules that come down and you  
11 have the rulemaker saying that at any cost they've  
12 got to be complied with, they must be complied  
13 with? Do you have those rules there, or is there  
14 separation there?

15 **MS. CHOI:** Some do consider cost, but some --  
16 the MACT cost isn't necessarily a consideration.  
17 It really is just based on the 12 top-performing  
18 units in the country.

19 **COMMISSIONER MITCHELL:** So what you're telling  
20 me, these rules are being adopted and cost is not a  
21 part of it.

22 **MS. CHOI:** In some cases, cost is not as  
23 significant a consideration as in others. Not in  
24 every case.

25 **COMMISSIONER MITCHELL:** I guess that would

1 make it very hard to compute what it's going to  
2 cost, wouldn't it --

3 **MS. CHOI:** It could.

4 **COMMISSIONER MITCHELL:** -- if there's no  
5 limit.

6 **MS. CHOI:** It could.

7 **COMMISSIONER MITCHELL:** Thank you.

8 **MS. CHOI:** Okay. 316(b) -- oh, do you have --

9 **CHAIRMAN HOWARD:** No, no, continue with the  
10 316(b).

11 **MS. CHOI:** 316(b) is Section 316(b) of the  
12 Clean Water Act, that's how we get the name,  
13 "316(b)." It does focus on the cooling water  
14 intake structures of our facilities. This proposal  
15 is meant to address impingement and entrainment  
16 from these structures. "Impingement" is when an  
17 organism is stuck on the outside of the structure  
18 -- generally, the screens -- and "entrainment" is  
19 when organisms get sucked through the screens and  
20 into the cooling water system. Generally, those  
21 things that get sucked through the screens are fish  
22 larvae, eggs. It's smaller fish and shrimp,  
23 potentially, on a coastal facility, that get  
24 impinged on the outer part of the cooling water  
25 intake structure.

1           This rule was released on the 28th of March.  
2           It was published in the Federal Register on April  
3           20th, beginning a 90-day comment period, which is  
4           July 19th. The final rules are subject to a court  
5           agreement, and so they are due by July of 2012.  
6           Again, the impingement requirements are to prevent  
7           aquatic mortality, and the entrainment requirements  
8           are to prevent passage of organisms into the  
9           cooling system, where they're subject to these  
10          stresses.

11                           [Reference: PowerPoint Slide 14]

12           For the first time -- this is the third time  
13           EPA has tried to define "best technology available"  
14           for cooling water intake structures. In every case  
15           in the past they've been subject to litigation and  
16           remanded back to the agency for further  
17           clarification. So in this third time, EPA has put  
18           forward a proposal talking about impingement  
19           mortality. For the first time they have raised  
20           this idea of facilities -- all facilities across  
21           the country, regardless of whether they have  
22           closed-cycle cooling, or open cooling -- to address  
23           fish mortality at their cooling water intake  
24           structures. And to meet this requirement is a  
25           performance standard across the country of assuring

1 basically 88 percent survivability annually or 69  
2 percent survivability -- and 69 survivability  
3 monthly, or assuring an intake velocity of less  
4 than half a foot per second, so you just have such  
5 a slow flow coming into the plant that organisms  
6 don't get impinged on those outer structures.

7 They presume that modifications to intake  
8 screens and fish return systems will assure  
9 compliance with this standard, and the documented  
10 compliance -- we believe -- will be challenging.  
11 We have to go out and sample the fish to assure  
12 that they are meeting this requirement, and the  
13 requirement is such that it's not just  
14 instantaneous survivability; it's actually latent  
15 survivability, so we have to keep the fish and  
16 other aquatic organisms alive for 24 to 48 hours  
17 and then determine if they have survived the  
18 impingement. For a facility that's in a lake, it's  
19 less troubling because we have fewer species, but  
20 for a coastal facility with hundreds of organisms,  
21 some which are predatory on each other, you're  
22 talking about having to collect these fish,  
23 separate these fish and assure they live, and then  
24 sample to meet this requirement. So it's a pretty  
25 onerous challenge on an ongoing annual and monthly

1 basis.

2 Entrainment mortality, this is for plants that  
3 intake greater than 2 million gallons a day for  
4 cooling. They did reject cooling towers as  
5 presumptive BTA, which is what we wanted. We did  
6 not want to have the requirement of cooling towers  
7 everywhere, so they did listen to the industry in  
8 that regard, and they have a case-by-case set of  
9 requirements that would be assessed to address  
10 entrainment, and the determination would be made by  
11 the state.

12 While they did not, in their preferred option,  
13 require BTA, EPA is taking comment on three other  
14 options, two of which would require mandatory  
15 cooling towers at all facilities that don't have  
16 closed-cycle cooling, so we will be commenting,  
17 opposing that, but their preferred option is not to  
18 require that.

19 [Reference: PowerPoint Slide 15]

20 This is a schedule of the requirements for  
21 316(b). Again, proposal in 2011, a final ruling in  
22 July of '12. Six months after the rule goes final,  
23 a number of studies are due -- this is across the  
24 country -- so again, it will be a competition for  
25 resources, because most of this work will be done

1 by contractors, and then additional studies in the  
2 years that follow. The requirements are that we  
3 must meet the impingement requirement within eight  
4 years of the rule going final, by July of 2012, and  
5 entrainment may extend beyond eight years depending  
6 on what the state decides.

7 [Reference: PowerPoint Slide 16]

8 This again is a snapshot of the impact of this  
9 rule on Progress Energy as a whole. 14,255  
10 megawatts impacted. We have 30 percent of our  
11 capacity does have closed-cycle cooling, but EPA  
12 for the first time also proposes a definition of  
13 "closed-cycle cooling system" and we have some  
14 concern that those facilities we define as having  
15 closed-cycle cooling won't meet the proposed  
16 definition.

17 We have 11 percent capacity with announced  
18 retirement that won't be impacted by this proposal,  
19 and then we have a number of other facilities that  
20 are impacted. The coal, gas, and oil facilities  
21 with once-through cooling: 20 percent of our  
22 capacity. And then you can see, I guess I'd say  
23 our cleaner facilities, 39 percent of the capacity  
24 being impacted.

25 [Reference: PowerPoint Slide 17]

1           If you look at our facilities, these are the  
2 facilities with once-through cooling: Asheville,  
3 we don't -- we're missing a data that is required  
4 by the proposal. We don't have a lot of technology  
5 already installed there, so we have to do quite a  
6 bit of work at the Asheville plant. The Robinson  
7 plant is a once-through cooling system. We do have  
8 data -- some data collected at Robinson. No  
9 entrainment data, but we also have some potential  
10 316(a) thermal issues at that plant. And at  
11 Roxboro 1-3, well-controlled units, no data.

12                           [Reference: PowerPoint Slide 18]

13           These are facilities that have closed-cycle  
14 systems. Again, as I noted, we may not meet the  
15 definition of "closed-cycle recirculating system."  
16 EPA -- Lee and Sutton have ponds, cooling ponds,  
17 and while those ponds are not subject to EPA  
18 regulation, we add makeup water to those ponds that  
19 are from waters of the US and therefore under EPA  
20 jurisdiction. And if we are pulling in water too  
21 quickly into our cooling ponds then they would not  
22 qualify as a closed-cycle system under the EPA  
23 definition.

24           The Mayo facility does have a cooling tower,  
25 and we have some questions about the definition of

1 "closed-cycle cooling" and whether it impacts the  
2 Mayo plant. You can see we're missing a lot of  
3 data that would be required under the proposed  
4 rule. So lots to do in a short period of time.

5 [Reference: PowerPoint Slide 19]

6 These are the nuclear facilities. Brunswick  
7 is a once-through cooling facility. Over 200  
8 species to address, plus being on a coastal  
9 facility, there are additional requirements for  
10 coastal facilities, such as entrapment. So if you  
11 get a fish into your intake, we have to have some  
12 way of allowing that fish to go back out to sea.  
13 We have some big, fat, happy fish sitting in our  
14 cooling area, because it's just -- you know, it's  
15 just feeding time all the time from all the other  
16 small organisms that come in. So we currently  
17 don't have a way for them to get back out to the  
18 estuary and we have to find some way to get them  
19 back out there, even though they might not like it.  
20 We have to figure out how to address a barrier in  
21 that requirement for shellfish, that's required on  
22 coastal facilities.

23 The Harris plant, we believe, is well-  
24 positioned. It does have a cooling tower. We  
25 believe it meets the definition of "closed-cycle

1 cooling system," and can meet the flow velocity  
2 requirement.

3 The Robinson plant, on the nuclear side, again  
4 missing some data, and some thermal issues there.  
5 We believe when we do the entrainment study at  
6 Robinson, though, it will show that a cooling tower  
7 is not feasible. The lake there is pretty shallow  
8 and the water supply is limited. We believe that  
9 we wouldn't be able to demonstrate that a cooling  
10 tower is not technologically feasible at Robinson.

11 [Reference: PowerPoint Slide 20]

12 These are other facilities. Cape Fear plant  
13 will be retired, so we believe it won't be  
14 applicable to that facility. Then Roxboro 4,  
15 because of where it withdraws its water, would not  
16 be impacted by this proposal.

17 [Reference: PowerPoint Slide 21]

18 So our key concerns here are, one, the  
19 impingement mortality limit. Again, that's the  
20 ability to meet a survivability limit that's so  
21 stringent across all species, right now, they  
22 haven't defined any limiting factor, and so a  
23 facility like Brunswick with 200 or more species,  
24 trying to ensure survivability of every one of  
25 those species would be difficult.

1           The cost estimates for the required studies,  
2           we're undertaking that today.

3           There is no cost-benefit consideration -- to  
4           your question -- for impingement mortality; it is a  
5           number of performance standards that must be met,  
6           no matter what.

7           Again, the compliance for impingement  
8           mortality for all life stages of fish and shellfish  
9           is, we believe, too extensive.

10          We get no credit, currently, for mitigative  
11          measures. So, for instance, we have a diversion  
12          structure at our Brunswick plant; we can  
13          demonstrate significant reduction in impingement as  
14          a result of the diversion structure, but there's no  
15          credit for that. You just have to get 88 percent  
16          survivability on any species that touches that  
17          screen.

18          Compliance with the information submittal  
19          deadlines. Again, because this rule kicks off  
20          across the country for everyone and we will be  
21          competing for resources, we believe that's going to  
22          be difficult to get all that information in a short  
23          period of time.

24          The definition of "closed-cycle cooling," we  
25          believe all our facilities have closed-cycle

1           cooling, it's just meeting the definition, and  
2           should this be grandfathered in.

3           Compliance assurance, again, that's as to the  
4           first point there. And then the cost-benefit test  
5           for entrainment. While they talk about a cost-  
6           benefit test, we'd like some more clarity on how  
7           you would do a cost-benefit test.

8                           [Reference: PowerPoint Slide 22]

9           I just wanted to mention that we do have these  
10          other environmental reg's. I'm not going to go  
11          into detail, but these are all sort of on top of  
12          each other. When we think about what we're going  
13          to do for an environmental compliance strategy at  
14          our facilities, we also have to take into  
15          consideration these other rules that are  
16          forthcoming by the EPA.

17                           [Reference: PowerPoint Slide 23]

18          So in closing, I'd just say, again, there's an  
19          unprecedented convergence of environmental  
20          regulations that are coming down the pike. We are  
21          in the front end of a long-term transformation to a  
22          cleaner generating system, and our fleet  
23          modernization efforts are well underway with the  
24          work that we did with the Clean Smokestack Act and  
25          the work that we're doing now with our combined-

1           cycles. We believe we'll have a much cleaner  
2           fleet.

3           Harmonizing these regulations and timelines  
4           would be a benefit and make a substantial  
5           difference in lowering the overall cost to the  
6           customers, and we believe that collaborating on  
7           this transition is the best approach to minimizing  
8           the cumulative customer effects, which is why -- as  
9           Len noted -- our request for your engagement in the  
10          regulatory process to comment to EPA about this  
11          transition and the impact to the customers, how  
12          important that is.

13          I'd be happy to take any additional questions.

14          **CHAIRMAN HOWARD:** Commissioner Wright.

15          **VICE CHAIRMAN WRIGHT:** This ought to be pretty  
16          easy. I was looking on your Asheville facility.  
17          You had a bullet that said "Applicability of rule  
18          to the French Broad River intake."

19                           [Reference: PowerPoint Slide 17]

20          What exactly is that?

21          **MS. CHOI:** Well, we have a cooling pond at  
22          Asheville, and we are not certain if the rule --  
23          where -- and so we have makeup water from the  
24          French Broad River into the cooling lake. And the  
25          question is whether or not this rule would apply to

1 that actual plant, based on that. We're just not  
2 certain if that would apply to the Asheville plant.

3 **VICE CHAIRMAN WRIGHT:** Okay.

4 **MS. CHOI:** EPA, I should say on this rule, EPA  
5 has done a cost-benefit analysis. The costs are  
6 22-to-1 right now, with the benefits. But they do  
7 believe that there are non-monetary benefits, and  
8 this goes to the health of the ecosystem that they  
9 couldn't monetize, and they believe if that were  
10 monetized, the cost of the benefits would be equal  
11 or the benefits might exceed the cost.

12 **CHAIRMAN HOWARD:** Do you mind going over your  
13 appendices?

14 **MS. CHOI:** Oh, sure. This was just to show --  
15 again, this is a stack test.

16 [Reference: PowerPoint Slide 26]

17 We had continuous emission monitors at our  
18 Asheville 1 and 2 Units. We did turn those off  
19 because they had such a divergence in what they  
20 were measuring. But with an instantaneous stack  
21 test and the monitors -- and these are the other  
22 two units we happened to do stack tests to meet the  
23 information collection request from the EPA -- it  
24 shows on an instantaneous basis that, in most  
25 cases, we are below the limit. In some cases, well

1 below. The concern is these, of course, are  
2 measured when a plant is fully operational, so it  
3 does not include startup and shutdown periods, and  
4 it's -- and it is an instantaneous test, not an  
5 ongoing compliance test. But we felt pretty good  
6 about the data that we showed here. It looks quite  
7 good in terms of our ability to potentially meet  
8 the new requirement with our existing technology.

9 [Reference: PowerPoint Slide 27]

10 This is the particulate emissions. Again, you  
11 can see the filterable we have with the PM,  
12 particulate monitor, continuous emission monitors,  
13 the PM CEM, at these facilities, and you can see  
14 what those numbers are. And the condensable is  
15 just an average, so we -- these are done at  
16 different times, but we just did stack them on top  
17 of each other to show that it looks like we might  
18 be able to, again, meet this limit. Again, this is  
19 at full load. This doesn't include startup and  
20 shutdown periods, which will move that number up.  
21 You can see, with a unit like Robinson that doesn't  
22 have post-combustion controls, the difficulty of  
23 meeting the PM limits without doing something more  
24 specific. We'll definitely need some work there to  
25 meet those requirements.

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[Reference: PowerPoint Slide 28]

And this is just our SO<sub>2</sub> emissions -- SO<sub>2</sub> surrogate for the acid gases -- and we believe that, potentially, with some tweaking, we could come in below that level.

Again, these are done without startup and shutdown periods, and so we believe including those makes it much more difficult to achieve on a continuous basis.

[Reference: PowerPoint Slide 29]

And this is just to demonstrate that what we're talking about in terms of emissions are really the -- we've done the low-hanging fruit and now you're talking about going much lower on the emissions. The dotted blue line are the NO<sub>x</sub> emissions, and you can see some of those reductions coming through as a result of the NO<sub>x</sub> SIP Call. And the red is our SO<sub>2</sub> emissions, which has dropped significantly as a result of both the federal acid rain program and the North Carolina Smokestack Act. And then the dotted black line goes to mercury, which is measured in the right side in pounds, because it's tons on the left side, and you can see that we've come a long way in terms of reducing mercury and project to go even lower in the next

1 several years.

2 So a lot of money spent to make those  
3 reductions, and a significant amount of dollars to  
4 drop those emissions even lower over the next  
5 several years.

6 [Reference: PowerPoint Slide 30]

7 And then these are the references to the rules  
8 that I mentioned.

9 **CHAIRMAN HOWARD:** Okay. Commissioners, any  
10 questions? Commissioner Whitfield.

11 **COMMISSIONER WHITFIELD:** Thank you, Mr.  
12 Chairman. Could you possibly go back to page 16, I  
13 believe it is, if I remember what slide number it  
14 is?

15 **MS. CHOI:** [Indicating.]

16 [Reference: PowerPoint Slide 16]

17 **COMMISSIONER WHITFIELD:** Right there.  
18 Where you've got the units with the closed-cycle  
19 cooling, you've got 30 percent, and you mentioned,  
20 of course, that's -- the 30 percent number's the  
21 ones that you had that may not meet the new  
22 definitions. But you said another figure, and I  
23 didn't catch that number, a percentage capacity you  
24 had. Was it 39 or 40 percent?

25 **MS. CHOI:** No, that 30 is the closed-cycle

1 cooling. And then other facilities -- the 20, 15,  
2 and 24 -- would be the capacity that has once-  
3 through cooling --

4 **COMMISSIONER WHITFIELD:** Oh, the --

5 **MS. CHOI:** -- with definitely --

6 **COMMISSIONER WHITFIELD:** -- once-through  
7 cooling.

8 **MS. CHOI:** And so that's -- what is that? --  
9 59 percent of the capacity has once-through  
10 cooling.

11 **COMMISSIONER WHITFIELD:** Okay. You may not be  
12 able to answer this question. Your attorney may  
13 stop you. But back to costs that I think  
14 Commissioner Wright or maybe Commissioner Hamilton  
15 asked you about on the first part of your  
16 presentation, do you have any idea about what it  
17 would take to get these units that you have an  
18 asterisk by, in the 30 percent that may not meet  
19 that definition -- because that's a large  
20 percentage -- do you have any idea what you may be  
21 faced with there?

22 **MS. CHOI:** No. Can I stop at "no"?

23 [Laughter]

24 We don't. We don't know, actually, what --

25 **COMMISSIONER WHITFIELD:** Oh, okay.

1                   **MS. CHOI:** -- we'd have to do to meet the  
2                   definition. It may be difficult. As an example,  
3                   the Sutton plant, which is in eastern North  
4                   Carolina, the cooling pond, it's built on sandy  
5                   soil and it doesn't have a liner. So the water  
6                   leaves the pond and flows out to the Cape Fear  
7                   River, and we make up water from the Cape Fear  
8                   River back to the pond. We don't do that on a  
9                   continuous basis and we don't measure that water  
10                  today, because we don't have to. I mean, it's just  
11                  not a requirement.

12                  **COMMISSIONER WHITFIELD:** Right.

13                  **MS. CHOI:** So, but based on the EPA proposal,  
14                  in essence, if we were utilizing 100 million  
15                  gallons a day at that plant, we could pull in no  
16                  more than 2½ million gallons into the lake. And we  
17                  believe, just because of topography and the sandy  
18                  soils, that we may lose and make up more than 2½  
19                  million gallons a day. So we're concerned that we  
20                  wouldn't meet the definition --

21                  **COMMISSIONER WHITFIELD:** Right.

22                  **MS. CHOI:** -- and we're not certain how we  
23                  would change that, because we've got those systems  
24                  already in place.

25                  **COMMISSIONER WHITFIELD:** Thank you. That's

1 all I've got, Mr. Chairman.

2 **CHAIRMAN HOWARD:** Commissioner Wright.

3 **VICE CHAIRMAN WRIGHT:** Obvious follow-up to  
4 that question: If that were the case and it didn't  
5 meet the definition, what happens? Does it move  
6 into the retirement column?

7 **MS. CHOI:** No, it just moves into the -- it  
8 would then be more defined with the once-through  
9 cooling. The way the rule works right now, if you  
10 meet the closed-cycle cooling definition, the study  
11 requirements are less --

12 **VICE CHAIRMAN WRIGHT:** Okay.

13 **MS. CHOI:** -- than if you're a once-through  
14 cooling facility. So if you don't meet the  
15 definition, you have more extensive studies that  
16 are required under the rule.

17 **VICE CHAIRMAN WRIGHT:** Thank you.

18 **CHAIRMAN HOWARD:** Commissioners?

19 [No response]

20 I have one. On Slide 14, it seems like a  
21 simple question, but I don't know the answer.

22 [Reference: PowerPoint Slide 14]

23 The impingement mortality, either the 12  
24 percent or the 88 percent -- or if you have the  
25 other one you want to use, the 31 percent or 69

1 percent -- percentage of what?

2 **MS. CHOI:** Of what gets captured or impinged  
3 on your outer structure. So generally what gets  
4 impinged on a screen -- because we usually have  
5 screens at these facilities, to try to reduce the  
6 amount of organisms that do come into the cooling  
7 system.

8 **CHAIRMAN HOWARD:** How do you know what the  
9 variable -- how many there are, to figure out a  
10 percentage?

11 **MS. CHOI:** You -- what you would do is, you  
12 have a traveling screen, the screen moves, and you  
13 then have water that flushes the organisms off the  
14 screen, and they go into a traveling system and  
15 collect in a pool at the bottom, so you can do a  
16 count in that pool of how many got impinged. And  
17 from that pool, you, of course, have to keep them  
18 alive for several -- a couple days, up to 48 hours,  
19 and then measure at that time what survives.

20 **CHAIRMAN HOWARD:** Thank you. Commissioners,  
21 any other questions?

22 **COMMISSIONER MITCHELL:** I have a question.

23 **MS. CHOI:** It's a little fish rot.

24 **CHAIRMAN HOWARD:** I see that.

25 [Laughter]

1 Commissioner Mitchell?

2 **COMMISSIONER MITCHELL:** Thank you. I love to  
3 talk about who's going to pay in rates, because  
4 that's always been a concern of mine, and I think  
5 it's a concern of everybody. On all these  
6 challenging EPA rulings, are all these costs to be  
7 borne by the ratepayers? Or the investors? And  
8 what kind of percentage would that be, if not? Or  
9 do you know?

10 **MS. CHOI:** I'll get our attorney to answer  
11 that question.

12 [Laughter]

13 **COMMISSIONER MITCHELL:** I thought he might --  
14 I wanted to get him a little more involved. I  
15 thought he might be getting a little sleepy over  
16 there or something.

17 **MR. ANTHONY:** Unfortunately, like any  
18 environmental statute or regulation that imposes a  
19 cost upon the utility, to the extent that cost is  
20 determined by a regulatory body to be reasonable  
21 and prudent, we're entitled to an opportunity to  
22 recover it through rates. That's one reason we are  
23 as interested as we are in ensuring that whatever  
24 requirements are imposed are done in a way that we  
25 can do it as cheaply as possible.

1           And to address your concerns about cost, we  
2           will get you the cost information we have. My  
3           recollection -- Caroline -- on the 316(b) is we  
4           calculated a maximum cost if we had to do cooling  
5           towers for every plant --

6           **MS. CHOI:** Yeah.

7           **MR. ANTHONY:** -- to bound the analysis,  
8           because that would be the most expensive compliance  
9           strategy for 316(b). The EPA is apparently not  
10          going to mandate that in every circumstance, but we  
11          can get you that information, as well as what may  
12          be the least expensive opportunity, and we can get  
13          a sense of where we will fall in between, assuming  
14          the EPA actually turns out to be as we are  
15          anticipating and we do all the studies and can  
16          figure out which technology will work for which  
17          plant.

18          **COMMISSIONER MITCHELL:** So the investors are  
19          never asked to carry any part of this burden as  
20          long as it's being considered by a regulatory body,  
21          is that what you're telling us, then?

22          **MR. ANTHONY:** Both the federal rules and laws,  
23          and the state's, to the extent we get them straight  
24          to you that a cost is just and reasonable, we're  
25          entitled to an opportunity to recover it through

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rates.

**COMMISSIONER MITCHELL:** Okay. I just wanted -- I've heard that said before. I like hearing it explained to me over and over. Thank you.

**MR. ANTHONY:** Thank you.

**CHAIRMAN HOWARD:** Any other questions?

[No response]

Mr. Anthony, you had two letters or drafts you wanted to -- if you'll give them to Ms. Wheat?

**MR. ANTHONY:** I will, yes, sir.

**CHAIRMAN HOWARD:** Thank you, very much, for your presentation. It's very interesting. Thank you, very much. We appreciate it.

**MS. CHOI:** Thank you.

**CHAIRMAN HOWARD:** With that, the briefing is adjourned. Thank you for coming.

[WHEREUPON, at 3:25 p.m., the proceedings in the above-entitled matter were adjourned.]

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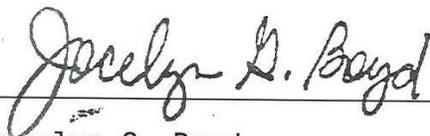
C E R T I F I C A T E

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 briefing held in the above-captioned matter before the Public Service Commission of South Carolina.

Given under my hand, this the 22nd day of June, 2011.

  
\_\_\_\_\_  
Jo Elizabeth M. Wheat, CVR-CM-GNSC

ATTEST:

  
\_\_\_\_\_  
Jocelyn G. Boyd,  
CHIEF CLERK/ADMINISTRATOR