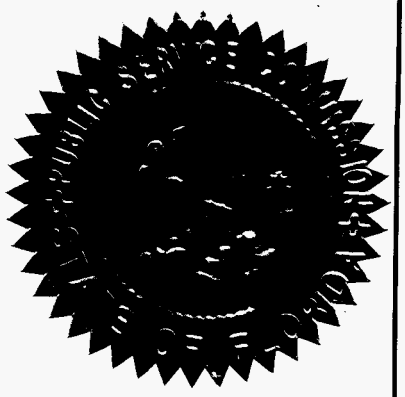
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 070703-EI

In the Matter of:

REVIEW OF COAL COSTS FOR PROGRESS ENERGY FLORIDA'S CRYSTAL RIVER UNITS 4 AND 5 FOR 2006 AND 2007.
_____/



VOLUME 3

Pages 352 through 478

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PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN MATTHEW M. CARTER, II COMMISSIONER LISA POLAK EDGAR COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO COMMISSIONER NATHAN A. SKOP
DATE:	Tuesday, April 14, 2009
TIME:	Commenced at 9:40 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, RPR, CRR JANE FAUROT, RPR Official FPSC Reporters (850) 413-6734/(850) 413-6732
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
55	Staff's 2nd Interrogatory No. 24, Docket 090001	380	
56	Indonesian Coal Price	386	
57	Effects of Blending Sodium in Coal	447	
58	Sulfur Evaluation Treatment	463	

P R O C E E D I N G S

(Transcript follows in sequence from Volume 2.)

CHAIRMAN CARTER: Good morning. I'd like to call this hearing to order. When last we left, we were getting ready for Mr. Burnett to begin his cross-examination. Good morning, sir. You are recognized.

MR. BURNETT: Thank you, sir.

DAVID J. PUTMAN

continues his testimony under oath from Volume 2:

CROSS EXAMINATION

BY MR. BURNETT:

Q. Good morning, Mr. Putman.

A. Good morning.

Q. Mr. Putman, what's a Btu?

A. It is a measure of chemical energy that can be converted into heat.

Q. And you admit that Crystal River Units 4 and 5 individually need at least 11,000 Btus to meet full load capacity of those plants; correct?

A. That is the testimony, and the design would indicate that. Yes.

Q. And you agree that if the coal that PEF buys does not meet the Btu criteria needed to obtain full

load capacity, PEF has to get those Btus from somewhere else; correct?

A. No, I wouldn't exactly agree with the way you phrased that. That -- the coal that's burned on an ongoing basis does require that kind of 11,000 or maybe even a little higher than that based on the testimony last time, but it requires a Btu level going into the boiler on an ongoing basis in order to maintain full load during that hourly time period. If you're questioning about -- I'm sorry. Go ahead. I won't go into that.

Q. No, sir. Please finish your answer.

A. I was going to say if you're talking about an annual basis, that's one thing. If you're talking about an hourly basis, that's another.

Q. Well, this may be a long day, Mr. Putman. Let's turn to Page 57 of your deposition. And when I asked you the question, the same one I just read you, "And you would agree with me that if the coal that PEF buys does not meet the Btu criteria needed to obtain full load capacity, it has to get those Btus from somewhere else; right?" Your answer, "That's correct."

A. Okay.

Q. Did I read that correctly, sir?

A. I'm sure you did. I don't, I don't have my

deposition in front of me. I'm sorry. But I will accept what you read.

Q. Okay. It looks like you're getting a copy now.

And going on, sir, to get in my, my little example I did, to get those additional 2,000 Btus, PEF would have to buy coal; right?

A. You said something about a little example. What example?

Q. Yes, sir.

A. I'm sorry.

Q. I just said that if PEF needs 11,000 and they only have 9,000, those Btus aren't going to appear out of thin air; correct? We have to buy something to get those Btus to get in the plant; correct?

A. Again, I'm really not trying to be difficult, but 11,000 Btus is a measure of a heat available in coal. If it's 11,000 Btus per pound, that's a measure of Btus in the coal. If you're talking about 11,000 Btus just by themselves, I honestly don't have a reference point for what that means.

Again, if you're talking about 11,000 Btus per pound of coal, that's the amount of quality of coal you need to be putting into the boiler on an ongoing, steady basis in order to generate full load. Yes. That's --

and if, I mean, you can't just go buy -- if you're only putting in 9,000 Btus per pound into the boiler, you can't go buy 2,000 Btus and make that up. I mean -- I'm sorry. I'm --

Q. Were you, were you finished, sir?

A. Yes.

Q. Okay. And I want to give you your point of reference. Let's go back to your deposition again when I asked you, Page 57, Line 16, "So, for example, if they bought just a 9,000 Btu coal and they needed 11,000, they'd have to make those Btus up somewhere; right?" Your answer, "Correct." "And those Btus, they just won't come out of thin air. You've got to buy something to get them; right?" Your answer, "Correct." Did I read that properly?

A. Yes.

Q. Thank you, sir.

Now you remember Exhibit 2 from your deposition; correct? It looks like this. It's in the blue packet in front of you, and that was handed out to the Commission yesterday.

A. Okay.

Q. And at Pages 64 to 67 of your deposition we walked through this exhibit and you confirmed that my math was correct, did you not?

A. Yes.

Q. And you would agree with me that this is a simple illustration of the Btu topic we were just discussing; right?

A. Again, I think we were both operating on the assumption, I know I was, in answering your questions that when we talked about Btus, we were talking in terms of Btus per pound. We were short-handing Btus per pound. It's the quantity -- quality of coal. And if I didn't make myself clear in the deposition, I apologize. But I, I mean, yes, Btus per pound is what I was talking about, had in mind, and I shorthanded that when I said 1 Btu compared to one ton.

Q. Okay. Well, Mr. Putman, you would agree with me that we agreed in your deposition that in my simple example if 1,000 times of this coal blend equals 2,000 Btus and 1,000 times of this coal blend equals 1,500 Btus, that if your objective is to reach 2,000 Btus, if you use this blend that only has the 1,500, you're going to have to buy some more coal. Didn't we agree to that?

A. Yes.

Q. Okay. Now I'd also like to turn to my big blowup here of your Exhibit DJP-7. It's also in the handout materials.

MR. McWHIRTER: Excuse me for interrupting, but could we identify these demonstrative exhibits in some fashion in case we need to refer to them in a subsequent pleading?

MR. BURNETT: I -- this was -- the first one I showed was late-filed, I'm sorry, Exhibit 2 to Mr. Putman's deposition. And as I just said, sir, this is Exhibit 7 to his prefiled testimony.

MR. McGLOTHLIN: John, is that the original or the revised 7?

MR. BURNETT: Original.

BY MR. BURNETT:

Q. Are you with me, Mr. Putman?

A. I am.

Q. And much like the simple example that we just went over, we talked about in your deposition the fact that while your tons matched up in your two examples, your Btus did not. Do you remember that?

A. Yes.

Q. And at the end of that when we talked about it in your deposition, you agreed with me that if your objective is to make the Btus match, you would need to buy some more coal; correct?

A. That would be correct.

Q. You also agree with me that when we were

talking about these issues in your deposition, your original position was that this Commission in Docket 060658 only cared about the weight of coal coming into Crystal River and not about the Btu values that the coal would have; isn't that right?

A. That was my position and I would say it is still my position.

Q. I'm sorry, sir. You said it's still your position?

A. Yes.

Q. Well, as I asked you more questions in your deposition, you backed off that position and admitted that this Florida Public Service Commission has never said that it would be prudent or wise for PEF to ignore the Btus it needs to run Crystal River Units 4 and 5 and to just make sure a certain amount of weight arrived at the plant, didn't you?

A. And I would still agree with that position too.

Q. So you would admit, sir, that if I have a certain amount of tons of rock show up at Crystal River, this Commission is not going to be satisfied that I just bought a certain amount of weight of rock to run those plants; right?

A. I would agree with that hypothetical.

Q. Now after, after I took your deposition and after my company filed its rebuttal testimony, I think we've all acknowledged that you had filed an amendment to your testimony; correct?

A. Correct.

Q. And now you give two alleged total damages numbers in your amended testimony, but you're careful to admit that the lower number of $33,971,584 is based on a methodology that is consistent with the assumptions that the Commission laid -- made in the last case; correct?

A. No, I'm not agreeing with that. Discussions that occurred after the depositions and other issues focused me in on the methodology needed to come up with a solution to a specific time frame, a specific set of issues in order to capture all the values in that package. That's what was needed to be presented to the Public Service Commission. And so that is why in my original case in going through all the discussions that went on in the prior case, all the discussions were about the needs of the blend, what size blend we were going to have. A lot of discussion boiled down to a 20 percent, 30 percent blend and finally ended up as a 20 percent blend. All that focus was on tonnage blend by weight. There was not any discussion about the need to have a total number of Btus arrive at the plant on an

annual basis. It was all about the percentage by weight of the blend.

So when I went through my calculation, my analysis, I very carefully pursued having a 20 percent blend based on weight. But then when I got to the Exhibit A in that order, there was a different equation, different math that was based on balancing Btus absolutely. And so that created a tension in my analysis that said what's the most important thing the Public Service Commission was focused on, was it weight or was it balancing, balancing tons or balancing Btus?

When I analyzed it, did my first analysis, I said that they were after the 20 percent by weight blend. If you use an approach where you replace a high Btu ton with a lower Btu ton, the tons are tons and you end up with a by weight blend match but you don't end up with as many Btus on the barge. Absolutely. So, yes, in order to make up those Btus that do not arrive at the plant on that barge, you have to go out and buy more Btus. But if you match the Btus, you don't end up with a 20 percent blend. You end up with something less than a 20 percent blend.

So my first calculation was based on the 20 percent by weight. But then that left a need for coal in order to make a nice complete package, and so

after much discussions I recognized the need in order to solve this particular problem to make those Btus balance. So I went in and calculated two different ways to make up those Btus. One way is you could make them up with all high-cost bituminous coal or you could get more of the blend coal, 20/80 blend. And you would end up buying more total coal either way, but you would end up with balancing the Btu needs at the plant.

My original concept was that, yes, you've got to buy Btus, but those Btus can come lots of different places that make up Btus. You could buy them delivered by rail, you could buy more waterborne Btus, you could buy higher Btu coal to make up, or maybe because of changes in the needs of the plant the plant doesn't end up needing the Btus you expected to need. Maybe the units go offline more than expected, maybe economic situations change and the burn is lower so you don't end up needing to replace all those Btus.

So that was my original concept and why I was comfortable balancing tons because I read that that's what the Public Service wanted, but I changed it and balanced the Btus to make a nice complete package. Long answer, but that's the history.

Q. Thank you, sir. Now if we could get back to my question. My question was that in your amended

testimony you have two proposed numbers; correct?

A. That's correct.

Q. Okay. And the first of those proposed numbers appear on Page 4 of your amended testimony; isn't that correct?

A. Yes.

Q. And that number is $33,971,584; correct?

A. Yes.

Q. Did you say yes, sir?

A. Yes.

Q. Okay. And on Page 4 of that same testimony at Line 21 you called this 33 million and some odd dollars number the all bituminous approach, do you not?

A. Yes.

Q. And then if you turn back to Page 2 of your amended testimony at Line 23, you say, "One way is to assume that they would consist of the same highest costing tons of bituminous coal actually delivered that the comparison methodology identifies as the coal that the alternative would displace. That appears to be the assumption underlying the refund made in the last case, and I have made my calculation on that basis." Correct?

A. That's correct.

Q. Thank you.

Now using rough math in your lower number that

we just talked about of approximately $33,900,000, that's about a 45 percent reduction in your alleged damages from your first testimony, isn't it?

A. I did not run that percentage, but I'll trust you.

Q. Well, I agree with you, lawyers shouldn't do math, should they?

Assuming my math is correct, a 45 percent reduction, that's a dramatic reduction in your damages, isn't it?

A. Again, that would be your term. It's a big, it's a big change.

Q. Bear with me one second.

Actually it's not my term, Mr. Putman. If you would turn to Page 11 of your deposition, at Line 4 I say, "And I believe you even characterize this 40 percent difference as being dramatic in Lines 5 and 6 of your original testimony." And your answer is, "40 percent is dramatic." Did I read that correctly?

A. Yes. Okay.

Q. So 45 percent would be equally dramatic, wouldn't it?

A. Yes.

Q. Thank you. By the way, sir, in your amended testimony are you assuming that any of the coal that PEF

would buy under your theory would be blended at the Alabama State Docks near Mobile, Alabama?

A. Yes.

Q. And at least at the time of your deposition you didn't know whether or not PEF even has a contract that allows for blending at those docks, did you?

A. I did not know, and it would not have made a difference in my assumptions.

Q. Well, let me understand that. Are you saying that you're assuming that we would bring coal to a dock and blend it, but it doesn't matter to you whether we have the right to blend it or not?

A. I assume that you could get a right to blend it at Alabama State Docks.

Q. Well, you would agree with me that if PEF does not have that right in real life, then that would be a problem we would have to overcome and that that would be a problem in your amended testimony as well; correct?

A. We're getting into the whole hypothetical issue is, I mean, you did not have the right to burn the coal in the first place. So now we're talking about the hypothetical need to have a contract to blend the coal that you couldn't burn. So all those hypotheticals make it very difficult to head down that line.

But, yes, it would be something -- if you

could have burned the coal, if you'd had the permit, you would have had to get a contract to blend some of that coal based on the numbers that existed in order to blend it at the state docks. Yes.

Q. Okay. Well, I want to be very clear because I heard Ms. Bradley commend the Office of Public Counsel when we started about candor and admitting mistakes when they're made. And I think you even agreed with me in your deposition that if you have an error or mistake in your testimony, it's very important to go back and correct it, didn't you?

A. Yes. I would agree with that today.

Q. Okay. And I guess my question is if you've made an assumption in your amended testimony that assumes my company has the right to blend at the Alabama State Docks and this Commission hears evidence from another witness saying we do not have that right as a matter of contract and a matter of reality, wouldn't you agree with me that you need to go back and fix your amended testimony based on the pure reality?

A. The realities -- it's a hypothetical set of circumstances about what you would do if you had actually bought the coal and you needed to blend 20 percent. If you were buying coal at IMT that did not give you enough coal to blend 20 percent and you were

buying other coal at Mobile and you wanted to blend at Mobile in order to get a full 20 percent blend, save the customers the most money, then, yes, you would have to get a contract under those hypothetical set of circumstances.

Q. Okay. And I just want to be abundantly clear. I'm going to try it one more time. You've read Mr. Weintraub's testimony, and if he testifies that we do not have a contract to blend at that dock and you've assumed that in your analysis, don't you need to go back and correct that in your hypothetical amended testimony?

A. I do not think I need to amend that in a hypothetical circumstance.

Q. Okay. Well, I'd like to continue to talk to you about some other issues that you do not address in your recently amended testimony, recently filed amended testimony.

You fully admit that in conducting your analysis in this case you used forecasted SO2 allowance prices for 2006 and 2007 instead of actuals, don't you?

A. In following the methodology in the prior case, I use that same approach, yes.

Q. Okay. And when Ms. Bennett was talking to you in your deposition about whether you had the availability to get those actuals instead of outdated

projections, you stated that you did not have them, but all anyone needed to do to get them was to pull them off the Internet; right?

A. That's correct.

Q. And wouldn't you agree with me that if this Commission is determining whether or not to make my company pay millions of dollars in alleged damages, it should consider what things actually costed in 2006 and 2007 rather than what someone projected they should cost in 2004?

A. I guess I'm a little surprised that you're taking that position because it sounds like the classic definition of hindsight review, which is my understanding something utilities and I know my utilities would not have ever liked that. And that is to look back on a decision made at a point in time and decide that that decision was more right or more wrong based on the way the world turned out later.

My understanding of prudency reviews are that decisions are reviewed based on the facts and circumstances known at the time the decision was made or should have been made and not to hold the decider to some set of circumstances that occurred later on, whether those circumstances turn out to be better or worse for the decision. You look at what was known at

the time the decision was made. And so that's what I did. I used the information that was available at the time the decision was made to forecast the numbers.

Q. Well, Mr. Putman, let me ask you this. If we're dealing with prudency in real life, shouldn't we do what Commissioner, Commissioner Skop suggested yesterday and ignore this whole paradigm and just focus on what actually happened vis-a-vis 29A that shows that my company beat all the prices of what it could actually have done with PRB coal? Shouldn't we abandon this made-up scenario altogether and just focus on reality?

A. No. I think that would be a mistake for a long-term way to run this business. I agree that hindsight review is not a good thing to do. I think prudency reviews should be based on what's known at the time the decisions are made, and I think it would be a serious change of course for the Commission to focus on hindsight review decision-making.

Q. Okay. Well, if you want to stick then in the made-up scenario, my question was simply shouldn't this Commission use actual prices rather than projections that were proven to be wrong by the actuals?

A. I don't agree with that.

Q. Okay. Continuing with the issue of SO2, you're aware that Mr. Weintraub and Mr. Heller have

accused you of double-counting or double-dipping in your alleged SO2 allowance damages; correct?

A. I know they accuse me of that, yes.

Q. Okay. And are you further aware that the basis for their accusations are that PEF's coal evaluation process accounts for SO2 allowance costs when coals are first evaluated and ranked?

A. I never became convinced of that despite a strong effort to find out how the Vista model and how their non-Vista evaluation process handles sulfur. Despite efforts to ask for Vista input sheets and output sheets, all we received were the evaluation spreadsheets that we looked at yesterday for both '06 and '07. And so it was never clear to me what, how those models handled sulfur.

Q. Well, let me get this straight. It was never clear to you how the models work, but nonetheless you filed testimony alleging first $61 million and now $33 million when you clearly admit here today that even as you sit here now you don't understand how the model works?

A. I don't understand how the model works. But if I run the math on what allowance values and allowance costs -- the cost of a ton of coal allowance is significantly higher than any of the adjustments made in

the evaluation process.

Q. Well, thanks for that. But in the, again, when I asked you in your deposition if you knew how SO2 was evaluated and whether or not you had double dipped, you honestly told me that you frankly didn't know whether you had double dipped or not, didn't you?

A. At that time I did not know.

Q. Okay. And you didn't know when you wrote your testimony, did you?

A. I did not because I did not have all the information I needed.

Q. And as you sit here today, I believe we just heard you testify under oath that you still don't know.

A. I don't know how the Progress Energy evaluation process handles sulfur, but I know that it does not use the evaluation, I mean the allowance price in that process.

Q. Now let's continue with other issues in your testimony. You're also aware, aren't you, that Mr. Weintraub has accused you of understating the cost of coal in 2006 and 2007 because he says that there would have been a price impact of taking a three-year contract bid and cutting it down to just one year? Are you aware of that?

A. I'm aware he said that, yes.

Q. Okay. And you didn't disagree with me in your deposition that optionality with respect to pricing, when you can buy and how much you can buy has monetary value in the coal market, did you?

A. It can have monetary value. Yes.

Q. And you even recognized, did you not, that coal suppliers may hold a bid open for a few months but they will not wait around forever for someone to make up their mind because time is money to them; correct?

A. That is correct.

Q. And speaking of contracts, you're aware that Mr. Weintraub has also accused you of failing to account for damages that would have occurred due to underutilization provisions in PEF's barge contract had PEF bought the Indonesian coal that you suggest in 2007; correct?

A. He speculated that that could create a penalty from the barge contract. Yes.

Q. Okay. Well, let's talk about that, Mr. Putman. You're certainly familiar with provisions in coal barge transportation contracts that provide for penalties if a utility does not use the barge to transport a minimum amount of times, aren't you?

A. I agree that there are such provisions. I did not find one in the MEMCO contract.

Q. Well, let's see. You stated in your deposition that you had a copy of the barge contract but you had never even considered it or read it prior to you filing your testimony; correct?

A. That is correct.

Q. So at the time you filed your testimony, you didn't know one way or another; correct?

A. That is correct.

Q. And the reason that you didn't know one way or the other is because you said it never occurred to you that there may be such issues as impacts on contracts that PEF had; correct?

A. Again, my process was to use the evaluation numbers off of the spreadsheets produced by your company, and so I did not evaluate it in more depth than that.

Q. Well, let me ask you this. You just said that you didn't find such a provision in the MEMCO barge contract, but if this Commission has it and another witness points it out and there is such a provision in there even though you couldn't find it, you would agree with me that if that provision exists, you need to account for that and you need to address that in your amended testimony; correct?

A. I would agree if you show it to me, then I

will change my current testimony where I say it's not there. I would change that. But whether or not it would impact my evaluation, I don't really think it would.

Q. Okay. So you -- if it's there, you'll agree with me that it exists and we would have had to comply with it, but you will not agree that that would have caused damages and your number needs to go down?

A. Again, because I'm not convinced that under all of the circumstances any penalty would have applied if it did exist in the contract. So, I mean, you've got a couple of things that would have to happen before a penalty had to be applied, if one even exists in the contract.

Q. Okay. I want to ask you some questions about the 2006 coal that you allege PEF should have bought from the two Kennecott bids that offered to supply PEF coal from Kennecott's Spring Creek Mine in Montana. And for ease of reference, I'm going to refer to that coal as Spring Creek coal when I talk about it.

A. One company, one offer was pure Spring Creek coal. The second offer was a blend of Spring Creek coal and an Illinois Basin coal. So they are different.

Q. Fair enough. And just for ease of reference, I'm going to refer to those as the Spring Creek coals.

A. Okay.

Q. Now to be clear about this, when I asked you at your deposition whether or not you knew what coal mine that coal came from, you had no idea, did you?

A. That's correct.

Q. In fact, you really didn't even know what state the coal in 2006, the Spring Creek coal would have come from, did you?

A. I did not know where the Kennecott coal would come from. That's correct.

Q. And at the time of your deposition you couldn't name one utility in the United States that had ever even burned Spring Creek coal, could you?

A. I assume that's what I said. So, yes, I would agree with that.

Q. Well, I don't want you to assume. Let me go ahead and read it for you. Page 30, Line 16. "So with respect to the exact coal that you were using in your analysis in 2006 from the two Kennecott bids, I just want to make sure I understand, can you tell me any utility at all in the United States that has ever burned that coal?" Your answer, "I cannot." Did I read that correctly?

A. You read it correctly. And I -- at that point that is correct.

Q. And you admit that in the last case, Docket 060658, you cannot point to one single place where this Commission heard evidence on Spring Creek coal, can you?

A. I mean, that's correct.

Q. Thank you. You talk about Georgia Power's Plant Scherer in your direct testimony, I believe, at Page 4; correct?

A. Of my direct testimony. Okay. Okay. Yes.

Q. And Plant Scherer burns 100 percent Powder River Basin coal, doesn't it?

A. That's correct.

Q. But you don't know if Plant Scherer has ever burned Spring Creek coal, do you?

A. I cannot sit here today and say I know that for a fact. No.

Q. Are you aware that there are, that there are co-owners that own part of Plant Scherer other than Georgia Power?

A. Yes. Yes.

Q. Are you aware that Florida Power & Light is a co-owner of Plant Scherer?

A. Yes.

Q. And are you aware that in a public record that Florida Power & Light filed with this Florida Public Service Commission, FP&L stated that Plant Scherer

rejected the use of Spring Creek coal because the sodium content of that coal was too high?

A. I'm not aware of that.

MR. BURNETT: Sir, may I approach?

CHAIRMAN CARTER: You may proceed.

MR. BURNETT: Thank you, sir.

BY MR. BURNETT:

Q. Mr. Putman, I'd like to refer you to the question there. "For each request for proposal for the coal issued in 2008 by Georgia Power Company/Southern Company Services on behalf of FP&L for its interest in Scherer Unit 4, what action was taken? Include with your response a summary of the evaluation process and how successful the proposals were selected." I want to go down -- can you read me the highlighted section there?

A. It says, "The Spring Creek offer was not considered because of the high sodium content of the coal."

MR. BURNETT: Mr. Chair, may I mark this as an exhibit?

CHAIRMAN CARTER: Okay. I think, I believe 55. Let me get my notes to be sure. Staff, can you help me out? I think it's 55, isn't it?

MS. BENNETT: It is 55.

CHAIRMAN CARTER: I think that will be 55. And let me get my paper together here so we can give it a short title.

Recommendation on a short title, Mr. Burnett?

MR. BURNETT: Yes, sir. It's staff's -- in Docket 090001, staff's second set of interrogatories number 24.

(Exhibit 55 marked for identification.)

CHAIRMAN CARTER: Okay. Let's try it again.

MR. BURNETT: Sorry.

MR. McWHIRTER: Can I ask who the sponsor of this exhibit is so we can take them on voir dire with respect to the truthfulness of the information contained in the exhibit?

MR. BURNETT: Mr. Chair.

CHAIRMAN CARTER: Mr. Burnett.

MR. BURNETT: I'm not offering this for truthfulness or otherwise. I simply have asked this -- first of all, I haven't moved it into evidence yet. I've only asked this witness questions about it. I do intend to move it in at the end though. And I could care less whether the statement is true or not at this point. I've asked the witness as to his credibility as to whether he knew this, whether he's researched this. This is what I'm offering this for.

CHAIRMAN CARTER: Okay. He's using it for cross-examination. You may proceed.

MR. BURNETT: Thank you, sir.

BY MR. BURNETT:

Q. Mr. Putman, at least at the time of your deposition you didn't know one way or another whether Spring Creek coal has high sodium or not, did you?

A. No. I did know that Spring Creek coal had high sodium coal. I did not tie the Kennecott bid to Spring Creek. I admit that.

Q. Okay. Now let's talk about the transportation costs for Spring Creek coal. You admitted to me in your deposition, didn't you, that the cost of transportation to get that coal from Montana to Crystal River would be higher than the actual cost to buy the coal itself, didn't you?

A. Yes.

Q. And despite this admission though that transportation cost is the highest element of the cost of the coal that you say PEF should have bought in 2006, you don't even know what elements make up the transportation costs that you use in your own testimony, do you?

A. I've relied on the information put together by Progress Energy on their evaluation sheets in an effort

to fully support their decision process and that is what I used. I did not try to second-guess their evaluation, I did not try to investigate whether their evaluation was correct. I used their evaluation.

Q. I appreciate that, sir. But my question was you don't know what elements make up those transportation costs, do you?

A. I did not know that at the time of the deposition.

Q. And you did not know that at the time then obviously when you filed your direct testimony, did you?

A. That's correct.

Q. And do you know them as you sit here today?

A. Yes. I've looked since then.

Q. Wouldn't that have been a good idea to take a look at before you filed testimony?

A. Not in the way I approached this analysis, which was to rely on Progress Energy's numbers that they put together and that they were using for their decision process at the time the decision was made.

Q. Now I want to try to wrap up my discussion on Spring Creek coal. You want to -- I want to briefly talk to you about capital upgrades.

You agreed with me in your deposition that if Crystal River 4 and 5 needed capital upgrades above and

beyond the upgrades that this Commission considered in the last case, the cost of those upgrades should be considered in the Commission's cost-effectiveness test, didn't you?

A. And that -- using the word if, yes, that was a correct statement.

Q. Yet despite this agreement you didn't perform any analysis to determine whether PEF would need any additional new and incremental capital upgrades to burn the Spring Creek coal that you sponsored, did you?

A. I did not because I relied on Progress Energy's evaluation process to produce the numbers that they would use in their decision making at the point they made a decision.

Q. And, sir, you similarly did not perform any analysis on how the Spring Creek coal that you sponsor may impact new environmental equipment being installed at Crystal River like scrubbers, did you?

A. I did not.

Q. And you acknowledged in your deposition that when plants have scrubbers and burn bituminous coals like the one you suggest we should have bought, utilities like Southern Company with Plant Miller, you may have to consider adding very expensive capital additions like baghouses to deal with mercury discharge,

didn't you?

A. I guess I think you need to ask that question differently because you said bituminous and I think you may have meant sub-bituminous.

Q. I certainly did mean sub-bituminous. Thank you.

A. In terms of sub-bituminous, yes, I would agree that there may be needs for additional equipment. Yes.

Q. And one of those needs may --

A. May.

Q. I'm sorry.

A. I'm sorry, but may is the word I underlined.

Q. Well, and one of those pieces of equipment as you admitted in your deposition may be a baghouse; correct?

A. That's correct.

Q. And you admitted to me that those can be very expensive, didn't you?

A. That's correct.

Q. Now turning to Indonesian coal, do you, do you dispute the fact that sometimes a coal supplier may place a bid to one party and then find a better deal somewhere else and make a sell to that better deal?

A. That does happen. Yes.

Q. And I think you admitted in your deposition

that the United States is only what you call, quote, an occasional purchaser of Indonesian coal and that the Asian market is booming. It's a better place for Indonesia to sell their coal and only occasionally is there a competitive advantage to bringing it to the United States. You said that; correct?

A. I said that. And I said that yesterday, too.

Q. Now yesterday you theorized that the Indonesian coal suppliers may have sold the coal that they had bid to Progress Energy to Southern Company instead of sticking with their bid; correct?

A. I saw that as a combination of circumstances that indicated that was a possibility.

Q. Well, assuming your hypothetical is right, how much do you think that Southern Company paid for that coal?

A. They paid, I know the coal that was bought from Indonesia that arrived at Scherer was expensive.

Q. I'm sorry. Did you say you knew it was expensive?

A. Yes.

Q. Do you know how expensive it was?

A. I saw that, but I don't directly remember the number.

MR. BURNETT: Sir, may I approach?

CHAIRMAN CARTER: You may approach.

Mr. Burnett, are you going to need a number for this or are you just using it for cross-examination? Do you want a number for identification purposes?

MR. BURNETT: Yes, sir, if I may.

CHAIRMAN CARTER: This will be, Commissioners, Number 56. A short title recommendation, Mr. Burnett. Short.

MR. BURNETT: Indonesian Coal Price.

CHAIRMAN CARTER: Great. You may proceed.

(Exhibit 56 marked for identification.)

MR. BURNETT: Thank you, sir.

BY MR. BURNETT:

Q. Mr. Putman, I'd like to draw your attention to what's now been marked for identification as Exhibit 56. Do you see the cost in cents per MMBtu that I have highlighted there?

A. I do.

Q. Do those numbers look like the ones you recall seeing?

A. Yes.

Q. So you'd have no reason to disagree with me that those numbers are accurate?

A. I have no reason to disagree.

Q. Thank you. By the way, let me ask you one

more question on that. These are in cents per MMBtus. Let's take the first one. What does 470 cents per MMBtu convert into for dollars per Btu?

A. $4.70.

Q. Thank you. Also, you can't point me to anywhere in the record in Docket 060658 where this Commission heard evidence on Indonesian coal, can you?

A. About Indonesian coal or a lot of other coals, that's correct.

Q. And with respect to the transportation costs for Indonesian coal, just like with Spring Creek coal at least at the time of your deposition and the time you filed testimony, you didn't know what elements make up the transportation costs that you used in your own testimony, did you?

A. I relied on the information produced and put together by Progress Energy on their evaluation sheets and counted on them to have done a good job of doing that.

Q. Well, just like the Spring Creek coal, you admit, don't you, that the transportation costs to get Indonesian coal to the United States will be more expensive than the cost to buy the coal itself; correct?

A. I certainly would expect that, yes.

Q. And just like Spring Creek coal, you didn't

perform any analysis to see if there were any transportation constraints for the delivery of Indonesian coal in 2007, did you?

A. I viewed Progress Energy as being in the best position to determine what costs were involved and that they needed to include in their decision-making process and that those numbers would show up on the evaluation sheet. I relied on that.

Q. Well, if that reliance was misplaced and there were other steps to the process, you would agree with me that that would be important to consider those other steps, wouldn't you?

A. I guess that's a hypothetical set of combinations, and I'm not comfortable with agreeing with that. No. I mean, that's sort of open-ended, and I can't agree with that being so open-ended.

Q. Okay. Well, let's, let's ask about some specifics. When I asked you several questions about offloading seagoing barges at the International Marine Terminal such as the unloading rates, you didn't have any idea about that topic, did you?

A. I had seen the bid and so knew the numbers that were proposed by the bid. I did not know the impacts of that on IMT or other unloading facility, how that would impact that. No.

Q. Well, and let me be specific. You didn't know whether at IMT gearless import vessels must be discharged from the import vessel to a river barge and then from the barge to the ground before they could be blended. You didn't know about that, did you?

A. I did not know that and did not view that as my responsibility. I view that as Progress Energy's responsibility.

Q. Okay. And you didn't know that same question for the United Bulk Terminal, did you?

A. Same answer.

Q. And, again, you didn't know what the trans-loading contract rate for gearless Panamax vessels at IMT was, did you?

A. I did not. Same answer.

Q. And you weren't aware of an incident in October 2006 where a Panamax sea vessel struck the dock at IMT, did you?

A. No, I'm not familiar with that.

Q. And you weren't even specifically aware of what kind of vessels would be used to transport Indonesian coal, were you?

A. One of them talked about being a gearless vessel.

Q. But you weren't specifically aware at the time

of your deposition, were you?

A. I was aware that one of the bids, and I think it was PT Adaro, was offering it in gearless vessels.

Q. Well, just like Spring Creek coal, let me turn to this, you agreed with me that if PEF needs capital additions to burn Indonesian coal that were not considered by the PSC in the last case, those additions should, just like Spring Creek coal, be considered in the cost-effectiveness test for Indonesian coal; correct?

MR. McGLOTHLIN: I'm sorry.

THE WITNESS: I'm sure you left the word "if" off of your question.

MR. McGLOTHLIN: I wanted the same clarification. I didn't hear that posed as an if question.

BY MR. BURNETT:

Q. It's an if question.

A. As an if question, then, yes, I would have agreed with that.

Q. Now you would agree with me that Indonesian coal has an extremely low sulfur content; right?

A. Yes.

Q. And you also agree with me that some precipitators on coal units may need sulfur injection

systems to deal with coals that have low coal sulfur content.

A. Some precipitators might need that, yes.

Q. Well, despite the fact that we agree that these coals that you're affording have low sulfur and despite the fact that we agree that some ESPs or precipitators may need sulfur injection systems, you didn't perform any analysis to determine whether PEF would need such upgrades to burn Indonesian coal, did you?

A. I was aware based on the testimony in a prior case that the precipitator installed on Crystal River 4 and 5 was significantly oversized in order to allow very low sulfur coal to be used in that plant without upgrades.

Q. Well, thank you, sir. But my question to you was with respect to the 2007 Indonesian coal that you used in your analysis, you didn't perform any analysis to determine whether Progress Energy Florida would need any new incremental capital additions that were not considered in the last docket to burn that coal, did you?

A. I did not do an independent analysis.

Q. Thank you. You also didn't research what PEF's opacity limitations are at Crystal River 4 and 5,

did you?

A. I did not.

Q. You also didn't research what PEF's particulate matter discharge limitations are at CR4 and 5, did you?

A. I did not.

Q. Now I want to turn to the topic of test burns, sir. You agreed with me both in the last case and in your deposition in this case that before a company switches to a new coal, it should do test burns, evaluate operational issues, recheck economics and maybe even do a second test burn; correct?

A. I would agree with that.

Q. And you also agree with me that the only way to know what a unit will actually do with coal is to make a real effort to test the coal to the unit's maximum capability, don't you?

A. I would agree with that.

Q. And you also agree me that bench marking off the experience that other utilities have with coal is an important part of the testing process; correct?

A. I would agree with that.

Q. And at Pages 127 to 130 of your deposition I think you give the most comprehensive description of spontaneous combustion that I've ever heard. So you

would agree with me that you have to be careful with spontaneous combustion when dealing with sub-bituminous coals; correct?

A. I would agree with that.

Q. Now in your last deposition -- in your deposition I showed you an article about the Scherer plant and testing Indonesian coal. Do you remember that?

A. I remember the article. I'm not sure -- I guess I did see it at the deposition. I think I had seen it before that.

Q. Okay. It looks like this. It's in your blue packet.

A. Right.

Q. And you remember when I asked you the question here, when this article says that I understand that Georgia Power has already made a deal with Adaro to test Indonesian coal at the Scherer Plant during the first half of 2006, so imported coal may be in Scherer's future, you told me that you didn't know one way or another whether Scherer had performed such test; correct?

MR. McWHIRTER: Mr. Chairman, can I request that this last exhibit and the one he's holding up now be given a number for identification in case we want to

refer to it some other time?

MR. BURNETT: I have no problem with that, sir. It is in evidence as Exhibit 2 now as part of the deposition. So it's already in as part of the composite.

MR. McWHIRTER: Well, give us a reference, if you would.

MR. BURNETT: It is in evidence as Exhibit 2 as a deposition exhibit.

MR. McWHIRTER: To whose deposition?

MR. BURNETT: Mr. Putman's.

MR. McWHIRTER: How about this document with the price that Georgia Power paid for --

MS. HELTON: I think that's already been given Exhibit Number 56.

CHAIRMAN CARTER: It is 56.

MS. HELTON: And with respect to this exhibit, I think it would be helpful to still have a more specific reference so that if someone does want to refer to it. Exhibit 2 is a pretty exhaustive exhibit, I believe.

MR. BURNETT: Yes, ma'am. We could look that up. It is -- I'll have Ms. Tibbits (phonetic) look that up. It's Exhibit 1 to Mr. Putman's deposition.

CHAIRMAN CARTER: Ms. Helton, you're

recommending that we give it a separate number for identification purposes, or what are you saying?

MS. HELTON: No, sir. It was just -- I think that this had a separate deposition, deposition exhibit number, which Mr. Burnett just said was Number 1, and I think that would be more helpful to Mr. McWhirter and others who may want to refer to this in their briefs.

CHAIRMAN CARTER: Okay. Are you okay with that, Mr. McWhirter?

MR. McWHIRTER: Thank you. Yes, sir. And this is going to be 56 for identification?

CHAIRMAN CARTER: 56. Yes, sir. 56. That is correct.

You may proceed.

MR. BURNETT: Thank you.

BY MR. BURNETT:

Q. So, Mr. Putman, again we established that Plant Scherer was a one -- is already burning 100 percent sub-bituminous coal; correct?

A. That's correct.

Q. Yet prior to filing your testimony in this case you didn't do anything to confirm whether or not that plant that's already burning 100 percent sub-bituminous coal felt it necessary to test Indonesian coal for the first half of 2006 anyhow, did you?

A. I think the answer to that is yes, but I, it was a little confusing, the question. But, no, I did not check prior to my testimony whether or not Scherer was testing Indonesian coal.

Q. Thank you.

A. I would like to make one comment about this. When I saw it in my deposition, it had a date, a publication date. The article was part of a whole page.

Q. Okay. It --

A. I just think it might be appropriate if this was a date, if there was a date on it that it was published.

MR. BURNETT: Mr. Chair.

THE WITNESS: Is that fair?

MR. BURNETT: The date -- the full article appears again as Exhibit 1 in his deposition.

CHAIRMAN CARTER: Okay. Just refer to the exhibit number. Let's proceed.

MR. BURNETT: Okay. Thank you, sir.

MR. McGLOTHLIN: Can we have that date for his purpose if the witness --

CHAIRMAN CARTER: Just look at the deposition. You don't have the deposition?

MR. McGLOTHLIN: I have the deposition.

CHAIRMAN CARTER: And exhibit number?

MR. McGLOTHLIN: I don't think I have the exhibit.

CHAIRMAN CARTER: The complete article is in there; is that correct?

MR. BURNETT: Yes, sir.

May I proceed, sir?

CHAIRMAN CARTER: You may proceed.

MR. BURNETT: Thank you.

BY MR. BURNETT:

Q. Now, Mr. Putman, in your direct testimony you come to the conclusion that if PEF needed to test burn Spring Creek or Indonesian coal at all, it would only take about four days to conduct a stack test; correct?

A. Correct.

Q. And just like I asked you in your deposition, sir, if PEF believes you and we start burning one of these coals without a test or maybe just with a four-day test, you will not have to answer to the Florida Public Service Commission if something goes wrong at the plant like an outage or a derate, will you?

A. I would not expect to have to answer to them. No.

Q. And you're not willing to post any sort of bond or any kind of insurance for PEF to use to buy replacement power if we believe your testimony and

something happens and there's a derate or an outage, are you?

A. I would not expect to post bond.

Q. Well, last few questions and I think I'm done, sir. You talked a lot yesterday about the operational capabilities of Crystal River 4 and 5, did you not?

A. I did.

Q. With respect to both the 2006 and 2007 coals that you assert we should have bought in this case, you have not performed an analysis as to how either one of those coals would affect pulverizer capacity, have you?

A. I would say I did an analysis. I read the material about the design of the boilers again and satisfied myself that -- I mean, I knew what the design was. If that's an analysis, I did an analysis.

Q. Well, sir, let's go back to Page 33 of your deposition, Line 16, when I asked you with respect to the 2006 and 2007 coals, "Have you performed any analysis with regard to how either of these coals would affect pulverizer capacity at CR4 and 5?" Your answer, "I have not." Did I read that correctly?

A. Yes.

Q. And you similarly have not studied how their moisture levels may impact operational performance, have you?

A. Again, it's a question of timing. You -- I have done that. I may not have done it at the time I did the deposition. The way you phrased the question just then, yes, I have done an analysis. I may not have done it at the time that the deposition occurred.

Q. So, sir, is it your testimony that with respect to these 2006 and 2007 poles, after you filed testimony and after your deposition you have now done an analysis on pulverizer capacities and moisture impacts?

A. That's correct.

Q. And where could I see that, sir?

A. The analysis -- again, I preface this, it all defends on how you define analysis. I read the material, I formed a judgment in my brain, and that's where it is. That is my analysis.

Q. And I'm going to go out on a limb and suggest that you can't print copy of your brain that I could review and cross you on?

A. I wouldn't want you to see what's in my brain.

Q. Fair enough. Well, let me try to go through these quickly, and perhaps you could just tell me yes or no if you have performed an independent analysis on these. Have you performed an analysis for self-heating temperatures of these two coals as they may impact the plants?

A. At this point, yes, I have done an analysis. It is admittedly a very minor analysis, but I have done an analysis.

Q. The same question on boiler efficiency.

A. The same answer.

Q. The same question on heat rates.

A. The same answer.

Q. The same question on ash levels.

A. The same answer.

Q. The same question on base-to-acid ratios.

A. Same answer.

Q. Same question to sodium levels.

A. Same answer.

Q. Same question to calcium levels.

A. Same answer.

Q. Same question to sulfur levels.

A. Same answer.

Q. Same question to electrostatic precipitator impacts.

A. Same answer.

MR. BURNETT: I have nothing further, sir.

CHAIRMAN CARTER: Thank you. Commissioner Argenziano.

COMMISSIONER ARGENZIANO: I will just wait until after the questions.

CHAIRMAN CARTER: Okay. Commissioner Skop.

We did staff yesterday, so we are going to come to the bench and then we will go back to redirect.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Mr. Chairman. Just one quick question to Mr. Putman following up on a cross-examination question by Mr. Burnett. I guess he had given a scenario of reality versus a hypothetical, and I think that you spoke to that. I'm trying to better understand and appreciate your testimony to the extent that I know that the Commission has already previously established the fact that CR4 and 5 units were built with the inherent capability to burn a blend of PRB coal, that the capability was lost through failure to maintain the permits, and that the Commission basically has required that the 80/20 blend be used when it's cost-effective to do so.

If I understand your testimony correctly, and please correct me if I'm wrong, the hypothetical example that you are asking the Commission to adopt assumes that no matter what, no matter what other circumstances are involved, that Progress should currently be burning that 80/20 blend of CAPP coal and PRB. Now, in contrast, Progress via interrogatory response to 29A has asserted that they have come up with another alternative which

burns a blend of bituminous coal which they allege is more cost-effective than the hypothetical you have posited for the Commission to consider. So if I have that wrong, please correct me. But, if I don't, then I have a follow-up question for you.

THE WITNESS: I guess it's all what you mean by hypothetical. I evaluated the decision that was made at the time of the 2004 decision-making when they bought coal and should have, according to the Commission's evaluation of the last case, they should have at that point had a unit that had a permit, had a unit that had tested Power River Basin coal, had a unit that had all the modifications necessarily made, and they should have been in a position in April of 2004 to buy the lowest cost coal offered to them. They did not have that capability. They were continuing to be imprudent in the terms that you all have used, and, therefore, they couldn't buy that coal.

So assuming that that imprudency would continue to exist, then the question is what is the refund that's fair. But things that happened after that that they took action to do which they could do under their existing permits at the time, which includes buying other bituminous coal, blending those other bituminous coals, maybe you can argue that was

mitigating the risk in some way. But the decision made in May/April of 2004 was, in my view, not a prudent decision.

COMMISSIONER SKOP: Okay. And fair enough. I mean, I think that listening to what you just said there is three basic building blocks. There was the past case, which the Commission has already adjudicated; there's the current case, which basically your testimony centers on what they should have done in 2004; and then there is the forward-going basis on do they have that inherent capability.

Now, the question I have for you is if we follow your analysis in 2004, and they should have, according to you, purchased the PRB coal, then I guess for 2007 they should have purchased the Indonesian coal, but what they ended up doing, to Mr. Burnett's point, in reality was something completely different that resulted in a more cost-effective alternative. So if you have two different paths -- I understand the imprudency, and, again, I think I made it really clear in my last concurring opinion that I expect them to have and restore that inherent capability to burn 80/20 when it is cost-effective to do so.

But the point I'm faced with today is do I stick rigidly to your hypothetical and ignore a more

cost-effective innovative alternative, or do I try to evaluate your alternative versus what Progress has offered that they have done in the instant case at a more cost-effective basis.

And so I guess the question I would have to you is assuming your testimony versus what Progress alleged they actually did, if we accept your position, then what are the damages to the extent that Progress has already done it cheaper than the testimony you've offered?

THE WITNESS: My response to that is, again, it is not an either/or situation. They could have bought low quality Btu bituminous coal and blended it. They could have also, if they had the right permits, bought sub-bituminous coal and blended it. They could have captured both savings. That's point number one.

The second point is the comparison that is made by Progress Energy in this case so far is a comparison of the fact that their blend of bituminous and bituminous was cheaper than a blend of sub-bituminous and bituminous when the process that was described in the last case is to compare back to the most expensive coal that was actually bought and received. So it was not a comparison between two options, new options. It was to compare an option back

to what was already bought and received moving through the transfers (phonetic). That is the way the analysis was described and set up. So comparing the two options to each other is instructive, but it is not the way the Commission said we should analyze their decisions.

COMMISSIONER SKOP: Okay. Fair enough. I just have, I believe, one final question. You spoke to that they should have captured both savings. But if one option that they actually did in reality versus what they should have done, according to you, if one option were cheaper than the other, then why wouldn't you just go with the -- you know, not that it's right, but why wouldn't you just accept the option that provided the most overall cost savings for the consumer?

THE WITNESS: Because if you can make two savings, you ought to make two savings.

COMMISSIONER SKOP: But if burning a blend of bituminous coal at the end of the day is cheaper than burning a blend of 80/20, the 80/20 would yield no savings. So I'm trying to understand how you would get both savings there.

THE WITNESS: I'm going back to what was bought and delivered. They could have replaced some of that bought and delivered with their blend, I mean, bituminous/bituminous, and they could have replaced some

of that bought and delivered with sub-bituminous and bituminous. The ratepayers would have gained -- based on their numbers and your position, they would have made more on the bituminous and bituminous, but they would have also made savings on the sub-bituminous and bituminous. And in defending the ratepayers, they should have captured both of them.

COMMISSIONER SKOP: Okay. I guess maybe I'm missing something there, because I understand exactly what you're saying, I was very supportive in the last case, but I'm not seeing those savings. So I guess the question that would arise -- because I'm looking at the data that has been presented by OPC, and I'm also looking at the data on 29A. And I guess what that is telling me is that although they may have been imprudent in 2004, they actually covered at a lower overall cost to the consumer.

So I guess what I'm struggling with, if that is the case, then could the Commission find that maybe their actions dating back as far as 2004 were, indeed, imprudent, but award zero damages because they covered with a savings to consumers?

THE WITNESS: I think that is a decision for the Commission to make. It sounds an awful lot like hindsight review. It says a decision was made which you

all have defined as an imprudent decision in 2004 because they didn't have the permit. And then you are going to now say, okay, we are going to second-guess that decision on things that happened after that. That, as ex-utility person, makes me nervous as hindsight review.

COMMISSIONER SKOP: Well, speaking to that, I mean, I guess I was accused of that last time, because I basically, you know, suggested in my concurring opinion that they had lost the capability that was inherent to the units themselves and that that had been recovered -- as you have stated in both of your testimonies in both dockets that that inherent capability has been paid for by the ratepayers. So I was all for you need to restore the inherent capability. But what I'm hearing now from Progress is that there is a cheaper alternative to an 80/20 blend, and that cheaper alternative is at the current time and the time at question is burning a blend of bituminous coal from domestic and international. And if that's the case, then why wouldn't we go with the cheaper alternative?

THE WITNESS: Then that brings back the fact that I don't really support their answer to 29A, whatever it is. They come up with a cost of the blend of sub-bituminous and bituminous which is totally out of

line with the number they show on their evaluation sheet.

COMMISSIONER SKOP: Okay, fine. But let me ask you that, and I'm not concerned about their evaluation sheet. I'm looking at the numbers in 29A in comparison to the evidence offered by OPC in DJP-6, which shows the evaluated cost of the coal, and also, too, in large quantity, I think there has been a data point that suggests that the delivered cost was about $2.28 in dollars per MMBtu, or 2.26, subject to check, and that price in all but, perhaps, one instance is higher than the data that Progress showed in 29A.

THE WITNESS: Right. I apologize, I don't have the 29A in front of me.

COMMISSIONER SKOP: Okay. I'm happy to -- you can have my copy.

THE WITNESS: I'm sorry, could you --

COMMISSIONER SKOP: Yes, sir. If you were to look at the column just to the right of coal supplier, it says dollar per MMBtu delivered to the terminal, and it shows, I guess, allegedly what Progress has done in lieu of the 80/20 that you have suggested. And I guess in 29A, in the response to that staff interrogatory, they are alleging that, one, it's cheaper than the equivalent price of PRB delivered to the terminal, but

then I'm also relating those prices back to some of the data that has been provided in the record evidence that suggests that in all but one instance these prices are at or below what PRB could be procured for.

So I guess I'm struggling to be fair, and I fully support your position to the extent that, you know, the Commission has previously established you burn 80/20 when it is cost-effective to do so. But beyond that, if there is a more cost-effective option that Progress maybe has stumbled into, and it results in more savings to the consumers than burning the 80/20 blend, then how could that be deemed -- I mean, I guess how could damages arise from that? I mean, I could see that you might go back to 2004 and say their actions were imprudent, but there were no resulting damages as a result of the imprudency.

THE WITNESS: Progress Energy testified to this sheet. But when I compare the bids that were available in 2004, May 2004 as evaluated, and this is on TJP Exhibit 6, Page 1 of 1, which covers the bids received for the May 2004 solicitation.

COMMISSIONER SKOP: I'm with you.

THE WITNESS: On the far right they show a utilized cost delivered to the plant, which means that it not only includes transportation all the way to the

plant and not just to the terminal, but it also includes the cost of utilization. Those numbers that are available are in the $2 range.

We offered the two Kennecott bids, which are under $2, and to me that is the comparison that ought to be made, not to these other numbers which I don't support and I don't really know where they came from of $2.34, $2.33, those kind of numbers.

So I think it comes to a question of which set of numbers do you believe. Progress Energy produced both of those numbers. They produced the ones on my exhibit and they produced these other numbers. One of them clearly comes from the 2004 time period. I'm not sure where the time period is. We have all heard testimony about a market surge of Powder River Basin coal. So coal bought after May 2004 probably would have been more expensive, which I think leads to the question of whether or not they made a mistake in 2004 in not buying the coal. So, I mean, I hear what you're saying and I understand what you are going to. I think the question is was it really cheaper to buy the bituminous and bituminous blend compared to what they could have done in 2004 to create a low-cost sub-bituminous and bituminous blend.

COMMISSIONER SKOP: Okay. Just one more on

that final point, one more question. Assuming for the sake of discussion that for the statement you just made that it was cheaper for the bituminous/bituminous blend. Would that not be prudent to have, I guess -- let me rephrase my question. Assume it was cheaper for the bituminous/bituminous blend, and that resulted in the least-cost option. Would there be any damages even if they were imprudent as far back as 2004?

MR. McGLOTHLIN: Excuse me, Commissioner, I think you may have misspoken.

COMMISSIONER SKOP: Okay.

MR. McGLOTHLIN: I think you meant to say sub-bituminous/bituminous blend for the purposes of the question, if I'm following you.

COMMISSIONER SKOP: No, I think the reality -- this all goes back to the reality versus the hypothetical. Mr. Putman is looking at 2004 and basically drawing conclusions as to what, in his professional opinion, Progress should have done with the facts known to them at that time.

Now, what I think Progress has alleged -- and, Mr. Burnett, please correct me if I'm wrong -- is that they may not have done that, but they did something else in the alternative. And the alternative was a bituminous/bituminous blend of domestic and

international coal, which resulted in a lower cost to the consumers than the 2004 not exercising or going down that path would have offered.

So if that, indeed, is the case, then I guess my question to Mr. Putman would be, yes, they may have been imprudent dating back to 2004, but if their subsequent actions cured that imprudency and resulted in savings to the consumers, then the crux to me is what are the damages and would they be, in fact, zero?

CHAIRMAN CARTER: Just a moment.

Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Actually a question to Commissioner Skop. I think -- and this is just what I'm hearing. I'm taking a position at this time. But what I think I'm hearing Mr. Putnam say is that his opinion, with the facts that he used, and facts are not hypothetical, there is a hypothetical component in there, but the facts that he used at the time in 2004, I think what he is saying, and correct me if I'm not hearing this right, because I'm trying to figure out the argument or the debate, is that he doesn't feel -- and please correct me, Mr. Putnam. I don't want to put words in your mouth. I'm trying to get this. You are saying that the numbers that Progress used, you don't know where they came from, or they are not the numbers

that you used from their evaluation sheet or the facts that were presented in the bids in 2004.

THE WITNESS: That's correct.

COMMISSIONER ARGENZIANO: So then how do we know? You, Commissioner Skop, need to tell me, because you are saying that Progress and Progress is saying that they realized the savings subsequently. I'm not sure I see that savings. I don't know where those numbers came from, and I'm trying to figure out where the savings came in.

MR. BURNETT: Mr. Chair.

COMMISSIONER SKOP: I will yield to Mr. Burnett.

CHAIRMAN CARTER: Let's hear from Mr. Burnett. You want to hear from Commissioner Skop and then --

COMMISSIONER ARGENZIANO: I am sitting here trying to figure out where the savings -- was it cheaper or was it not. That to me is the big question.

CHAIRMAN CARTER: Commissioner Skop.

COMMISSIONER SKOP: Thank you, Mr. Chairman. And I think your point is well taken. I want to refrain from debating the merits of this, but with respect to the testimony, the last docket to me was clear cut and the Commission did what it did and I took my own separate opinion. This one, again, I think it boils

down to whose numbers do you believe. And if Mr. Putman is, in fact, correct as you suggested and Progress should have done something in 2004, then, fine. But if they have done something effectively in reality different and that resulted in savings over and beyond what Mr. Putman has alleged they should have done, then perhaps you could find imprudency, but I don't see any damages, and that's what I'm trying to struggle with.

COMMISSIONER ARGENZIANO: Mr. Chair.

CHAIRMAN CARTER: You're recognized.

COMMISSIONER ARGENZIANO: My question to Mr. Putman is do you see the savings? I'm trying to find if there is a savings. Can you tell me do you see subsequent savings as Commissioner Skop has indicated, and could you pinpoint those. And then I will ask Progress the same question, because I really want to know.

Did it ultimately lead -- whatever their actions were ultimately subsequently, did it lead to cheaper than what they could have got if they went -- and I know that is hindsight again. How do you know that was going to come about, I guess.

THE WITNESS: If I can let me try and give my opinion. I am sort of getting into things that are truly Commission decisions, but you have asked my

opinion.

First of all, I don't see savings compared to a decision made in 2004. As time went on and they were buying coal for a bituminous-to-bituminous blend and comparing that to what they could have been doing at that same time period, which was later than 2004, that was cheaper than they could have gone out in 2005 and 2006 and bought a sub-bituminous/bituminous blend. That is a possibility, because the sub-bituminous went up. So, over time, if you were comparing them at the same point in time, it is possible that there could have been savings of using a bituminous/bituminous versus a sub-bituminous/bituminous bought at that future point.

But, the other point is, and I think this is where I'm probably out of my line, but it appears to me that what is being introduced is the whole concept of mitigation of imprudency, which I'm not sure I have ever read anything about in my time in the utilities where an imprudent act occurred at one point and then it was mitigated. That's a slippery slope, because then it introduces the question of should you have mitigated and failed to mitigate and, therefore, we are going to punish you. It's all hindsight review, and as an ex-utility person, that makes me very nervous.

COMMISSIONER ARGENZIANO: Thank you.

And, Mr. Chair, that was my point to Commissioner Skop. If you are talking about it being hindsight, I'm not sure -- it could have had a different scenario, so I'm not sure that is the best practice to take. We are going to doing this today because two years from now something else could happen. It could have turned out the other way. So I'm not sure I understand your point.

COMMISSIONER SKOP: Well, I think, and with all due respect, and I think your point is well taken, too, and I think Mr. Putman has raised an issue that, again, he's judging what Progress should have done based on 2004.

Now, what Progress did in reality may have resulted in a lower cost, but I believe in Mr. Putman's mind that does not negate the imprudency dating back to 2004, and I think that's the point you're trying to make. My question is -- at least from my perspective is they probably should have done what Mr. Putnam has suggested, okay, if that was, indeed, the prudent thing to do. But by them failing to do that -- and maybe they stumbled into doing something different. If that resulted in a lower overall cost, then the thing I'm struggling with is going back to Mr. Putman assuming that the Commission, based on Mr. Putman's testimony,

were to render a decision ultimately based on the record evidence of imprudency, then how do you award damages on something where the end result of the reality was a lower overall cost savings. I think that is what I'm struggling with.

CHAIRMAN CARTER: Commissioner.

COMMISSIONER ARGENZIANO: I think I understand, it is just that it really is a dangerous slope.

COMMISSIONER SKOP: I wholeheartedly agree, but then the thing is is it would be pretty easy to go in and say you should have done this, and that is based upon how the Commission deems on the record evidence and reflection in that. What's hard to do is set damages from that. If reality turned into a lower cost versus the hypothetical of looking back at what they should have done, but the overall cost savings was more in the haphazard way. I agree it is a slippery slope, but also one of the principles is if the Commission ultimately finds imprudency, the Commission has to award damages. And if actual damages are negative, then how do you award damages?

COMMISSIONER ARGENZIANO: Well, let me ask you this. Let's say because the bids were in front of them there may have been cheaper opportunities at that time.

I don't know if it was available. I am still trying to put all the pieces together and I still have a lot more information before I make a decision. But in your scenario let's say we said, okay, you acted imprudently maybe in '04, but you fixed it later on. What if that were to happen again and it didn't get fixed later on, and the next time it happened it cost more because of that decision. Then can you turn around and say, well, you the Public Service Commission said we fixed it and that was okay, so we tried it again. I'm not saying the company is going to do that, I'm just saying is that a good precedent to make.

COMMISSIONER SKOP: I agree, you know, it's a legal concept. It is hard for me, again, if you were to look back to 2004 and say, you know what, you should have done this. But, you know, then you have to look at is it fair to -- you know, if the end result was at a less cost, so damages would be negative, then the question is what should you have done versus what, you know, what the actual harm was.

But I agree with you, and that is one of the things that troubles me. And another thing that troubles me is some of these issues, these very issues were never raised in the last docket. But a lot of discussion now is focused on, you know, specific mines

in Indonesia and all of that, so that is different from the last docket.

But what troubles me, again, is I still firmly believe, as in the prior Commission order, when it is cost-effective to do so that an 80/20 blend should be burned, and I think that is Mr. Putman's contention based on what I have heard his testimony to be.

COMMISSIONER ARGENZIANO: Well, if you remember -- Mr. Chair, if I may.

CHAIRMAN CARTER: You're recognized.

COMMISSIONER ARGENZIANO: I asked staff, I believe it was yesterday, about what our charge really is. And what it comes down to me is that -- and I don't know, I guess maybe you are having the question of should Progress have bought a particular type of coal or any coal as long as it was the cheapest. And, of course, we need to take into consideration the costs in doing that. Would there be retrofitting and all that kind of stuff. And I'm not sure how difficult that is since I see other companies doing that. And what I heard that this plant was built to take on different coals. So is our main goal it seems to me in determining prudency, what are we determining prudency for? Is it the prudence that you didn't use a particular -- the Powder River Basin, or was it that it

was supposed to be the cheapest. And that is what you with due diligence as a company are supposed to do. That is what I'm focused on. And what I hear you saying is that you may not be focused on the cheapest, but where it is from.

COMMISSIONER SKOP: No, I think we are saying a combination of the same things. I think in the prior docket the Commission clearly established the fact, as you correctly stated, these plants were built with the inherent capability to burn an 80/20 blend. You know, that capability was not maintained through the lapse of the permits. And that the Commission in its prior order found that when it was cost-effective to do so, that they should burn an 80/20 blend. When it is not cost-effective to do so, they could probably get away with doing the 100 percent CAPP coal.

But what I'm struggling with, again, in 2004 they probably should have done some of the things that -- you know, again, I don't want to get into the merits, but what I am hearing in the record evidence also is in 29A, you know, basically Progress has alleged that they did something different, completely different that resulted in an ultimate cost savings. And so the question is, I guess, that I had to Mr. Putman is if, in fact, they were, you know, perhaps imprudent in 2004,

what would actual damages be if they did something that resulted in an overall cost savings to the consumers, even if they happened into that by mistake or what have you. But ultimately, you know, you could be imprudent but still have no damages, and I guess that is what I'm trying to get Mr. Putman to evaluate based on, you know, looking at 2004 versus what they actually did, which was Mr. Burnett's question on burning a blend of bituminous -- of domestic bituminous with international bituminous, and which in 29A they have alleged was cheaper than the PRB option.

THE WITNESS: Again, my position is the concern about looking back and doing hindsight review. Maybe an example will help that is not quite as controversial. Off that 2004 bid, Progress Energy did decide to buy some bituminous coal, and they bought that based on the lowest cost bituminous coal offer. But they made a decision that in spite of the fact that they were offered coal for 2005, 2006, and 2007, they only bought coal for 2005 and 2006 because it was their view, based on the letter in the document, that they would rather hold 2007 open for future opportunities.

Well, as it turns out 2007 for bituminous as well as sub-bituminous was higher than it was in 2004. So by deciding not to buy in 2007, it cost more money

than that earlier decision. But I would never sit here and say you should punish Progress Energy for not buying in 2007, because in 2004 they thought that was a wise decision. But if you say we're going to look back and see what really happened, then you would look back and say you didn't buy that coal in 2007. It was cheaper; you made a mistake, we are going to punish you. That is the kind of slippery slope I would not want to, in any way, have utilities subjected to.

COMMISSIONER SKOP: And I wholeheartedly agree. I mean, I'm trying to find out, you know, listening to the testimony, you know, which testimony is more credible, what numbers I should believe, and try to establish if there was, you know, in my mind, imprudency, then what are the appropriate damages to remedy that.

But this one, like I say, there are many different sets of numbers being tossed around here, and I'm trying to correspond, you know, some of the witnesses have alleged they should have done certain things, and I'm looking at that with what was actually done and trying to basically integrate those two and understand what was the ultimate outcome. And if the ultimate outcome was, in fact, a cheaper option, it doesn't make it any less right, but at the end of the

day by maybe mere coincidence it turned out cheaper. So, again, I'm trying to understand and give, you know, the appropriate weight to each of the respective testimonies. I do appreciate your lengthy explanation on this. Thank you.

MR. BURNETT: Mr. Chair.

CHAIRMAN CARTER: Mr. Burnett.

MR. BURNETT: Yes, sir. We had a homework assignment from Commissioner Skop yesterday. I heard him say that he wanted to get the numbers in 29A SO2 normalized, transportation normalized, as well as these numbers off GJP-6 normalized for transportation. If it helps, we have prepared that and can present it now.

COMMISSIONER SKOP: I'd be happy to see that, Mr. Chair.

MR. BURNETT: We could also present it with Mr. Weintraub. It's to your discretion. I just wanted to let you know that we have done that.

COMMISSIONER SKOP: That would be better.

CHAIRMAN CARTER: I had rather do it that way. That's not Mr. Putman's deal.

MR. BURNETT: Yes, sir. Thank you.

CHAIRMAN CARTER: Mr. McGlothlin, you're recognized for redirect.

MR. McGLOTHLIN: Thank you.

REDIRECT EXAMINATION

BY MR. McGLOTHLIN:

Q. And I want to begin with some questions that address this conversation on 29A. I think it's important to do. Mr. Putman, you have with you, do you not, a copy of what was originally called your DJP-6, which is the summary of the bids to the April 2004 RFP?

A. I have that.

Q. And is that the basis for the prices that you think the company could have bought sub-bituminous coal for delivery in 2006?

A. That's correct, those are the numbers I used.

Q. Now, I want to refer you to the answer in 29A. Do you see the sentence that says, "The PRB coal, if it was purchased in May 2006, was more expensive than the base coal that it was blended with"?

A. I haven't found it yet.

Q. The fourth line in the answer.

A. Okay. Yes, I found it.

Q. Does the coal that was purchased in May 2006 have any relationship to the bids of the April 2004 RFP?

A. No. Well, ask that again.

Q. What was the PRB coal that was purchased in May 2006, do you know?

A. The PRB coal that we recommended selected was

Kennecott coal that would have been bought and delivered in 2006.

Q. Yes. And is that the same as or different from the coal that was purchased in May 2006 and blended with base coal and actual purchase?

A. No, the bituminous coal they are talking about is different than the coal shown on my Exhibit 1, Number 6.

Q. So the question is can you glean whether in preparing 29A did Progress Energy base its price of the delivered cost of sub-bituminous coal on your Exhibit 6 or on something else?

A. It must have been something else. In this sentence that you quoted the PRB coal that was purchased in May 2006, and there was no coal, sub-bituminous coal purchased -- actually purchased in May 2006.

Q. Would you recall a test burn that occurred in that time frame?

A. Oh, okay. Okay. Thank you. Yes, now -- okay. That was purchased in 2006, the Peabody coal for test burn.

Q. So in terms of comparison of the price you contend was available and should have been taken advantage of from the '04 RFP as shown on 6, and the way Progress Energy constructed 29A, can you tell us whether

the company based its price on delivered PRB coal on the April 2004 RFP or on something else?

A. It was not based on the 2004 RFP.

Q. Okay. Now, there is a column there that says PRB transportation cost to terminal, and they range from 30 to $32 and change or dollars per ton, are those equal too, less than, or more than the transportation component of the April 2004 RFP as you understand it?

A. These numbers are more than the numbers used in producing DJP-6.

Q. Okay. Now, with respect to the numbers shown on the summary of bids to the April '04 RFP, the evaluated utilized price, at what point in the process of evaluating bids, identifying winners, and negotiating contracts, does the utility secure transportation for those tons?

A. The normal process in preparing to react to an RFP would be to look at these bids, and look at the winners of that, the lowest cost, and say, okay, these are the ones I'm going to negotiate with. Now, I need to go firm up my assumptions. They have got a bid in hand from the coal supplier. The other piece that is very important is they have got to firm up the transportation part of it. They have put a number in here that they say is what the transportation is going

to be. They need to either have already an existing contract that they can move that coal under, or they need to go get a firm bid from a transportation supplier that would match up, support their evaluation.

And to go off and negotiate with a coal supplier when you don't have the transportation component locked up would be dangerous. So the normal process is before you start your negotiations, very quickly, even a lot of times contemporaneously with asking for coal bids, you ask for transportation bids, you put them together, and then you know what it is you are getting ready to negotiate. You would not want to negotiate with a coal supplier, make a deal, and then go out and tie up your transportation costs.

Q. You attached to your testimony, in addition to this summary of all bids, a letter reporting to management the purchases that resulted from the RFP of 2004, did you not?

A. That's correct.

Q. Do you have that available to you?

A. I do. It is Exhibit Number DJP-5.

Q. Now, I draw your attention to the discussion of the purchases that were made as a result of the RFP process and also the report of the cost in dollars per MMBtu at which those purchases will be delivered to the

plant site. Do you see that purchase?

A. Yes.

Q. When one correlates that report of what the delivered purchased price was going to be to the evaluated utilized costs shown on the DJP-6, can you ascertain whether the contract price reported including transportation is equal to, less than, or more than the evaluated cost?

A. The example would be on Page 2 of 4 of that letter. Under domestic water it says that they have purchased Delta coal, which is coal for Crystal River 4 and 5 from -- the first one is from Central Coal Company, and that coal would ship and deliver into Crystal River at $2.672 per million Btu. If you go back to the bid sheets and find that Central Coal is down in the Central Appalachian coals in the middle, the second one down, you will see if you go across for the cash cost, not the evaluated cost, but the cash cost is 2.672, which lines up with the letter.

So what they are reporting is that they were able to buy that Central Coal at the price that they had in their evaluation sheet. So obviously they bought the coal at the price it was bid and they locked up the transportation at the cost that was put into that evaluation sheet.

If you look on the following page under domestic rail under Delta Coal, again, coal bought for Crystal River 4 and 5, it talks about coal bought from Massey Energy and at a delivered cost into Crystal River at 2.693. If you go back to the bid sheet you will see Massey Coal -- in this case it's the second Massey down, the Van Mill mine (phonetic). If you go across again, the cash cost is 2.693.

Now, I will point out the difference between the cash cost and the evaluated cost. The evaluated cost includes the impact of operation in the boiler. It is used for decision-making. But once you decide on what you are actually going to pay to the coal supplier and transportation supplier is the cash cost. So that is what you pay. You make your decision based on the evaluated cost.

Q. Based upon the examples that you gave, do I understand correctly that with respect to the purchases actually made as a result of the RFP process in 2004, the evaluated price including transportation was translated into a contract with the same price including transportation?

A. That's correct.

Q. In your experience, and you have had experience in terms of conducting RFPs and contracting

with bidders, have you not?

A. That's correct. For a period of time I managed Southern Company's procurement, and we were the largest coal buyer in the United States, and one of the top two or three in the world.

Q. Would a situation in which an RFP process that led to an evaluated cost subsequently translated into a contract at the same or very nearly the same cost be typical or atypical?

A. It should be typical. That's the way it ought to work.

Q. Would you expect that to be true not only of the bituminous purchases that were made, but of the sub-bituminous offers that were there for the taking?

A. I would expect the process to work the same. If you are going to buy something and negotiate something, you better tie up the transportation costs at the same time you are tying up the coal costs, yes.

Q. Now, you have heard references to and descriptions of the transportation component of this evaluated cost referred to as forecasts and you have heard people say that your assumptions on the transportation costs were in error because they subsequently increased. Do you accept and agree with the proposition that the delivered costs shown in the

summary bids was subject to significant increases in the transportation component?

A. It should not be. Before it got on this sheet, somebody at Progress Energy should have determined what was available for transportation and had a good handle on that.

Q. So if that process had unfolded as you say it should have unfolded, if it had taken place in exactly the same way they were converting the offers for bituminous coal into contracts at exactly the same price including transportation. In your opinion, what should the delivered cost of PRB on -- what should it be on 29A for comparison with the other transactions?

A. The PRB delivered cost to terminals number?

Q. Well, let me ask you this. At what point of delivery do the evaluated costs shown on your Exhibit 6 assume?

A. All the way to the Crystal River plant.

Q. So even if we used the evaluated costs shown for delivery to the plant, which includes more legs of the transportation than does 29A, can you tell us whether the prices bid into the 2004 RFP for sub-bituminous coal were equal to, more than, or less than the prices shown for the spot purchases and the blend purchases here?

A. The prices that were available in 2004 under this inquiry are lower than the prices shown on the 29A answer, that they were -- 29A indicates a higher transportation cost and probably a higher coal cost than is shown on Exhibit 6.

Q. So if 29A were modified to include that last transportation leg to the terminal, would the differential between what's shown for the bituminous purchases and the delivered cost of the evaluated cost in the RFP from '04 increase or decrease?

A. They would increase on 29A.

Q. In that instance would the PRB purchases be more or less attractive compared to the bituminous purchases reported on 29A?

A. Would you ask that again?

Q. Yes. If you fold in the additional component of transportation cost that is not shown on this sheet and compare that to the corresponding delivery costs shown in the evaluated cost from the 2004 RFP, would the sub-bituminous coal bids be more attractive or less attractive in terms of the differential between the costs?

A. The 29A numbers would be less attractive compared to Exhibit 6.

Q. When you say the 29A prices, are you referring

to the bituminous purchases there?

A. I'm really referring to both of them. Bituminous coal would be less attractive than the bituminous coal in 6. Sub-bituminous would be less attractive than the sub-bituminous on Exhibit 6.

Q. I see what you're saying. All right. Now, with respect to the blending, I'll refer you to the answer in 29A, one, two, three, four, five, six, about six lines in it says in the summer of 2007, Progress Energy was offered and purchased low quality Central Appalachian coal that was a cost-effective blend coal. Do you see that?

A. I do.

Q. If the coal was offered in the summer of 2007, when would it have been delivered, if you know?

A. I assume it would have been delivered shortly after that in a spot market kind of buy.

Q. Does 29A shed any light on the volumes of the lower bituminous coal that were blended in that fashion?

A. No, I do not see any tonnage numbers on here.

Q. And does 29A address, in any fashion, the corresponding savings that could have been achieved in 2006 with the PRB blend?

A. It does not.

Q. Based upon the information available to you,

Mr. Putman, do you think the savings that should have been accomplished by virtue of purchases of sub-bituminous coal for delivery in the 2006 and 2007 on the one hand, and the blending of lower Btu bituminous coal with higher Btu bituminous coal that began sometime in the summer of 2007 on the other hand, are those two measures necessarily mutually exclusive?

A. They are not mutually exclusive.

Q. If they are not mutually exclusive, does the blending of the bituminous coals referred to in 29A do anything to cover or mitigate the savings that could have been accomplished with the purchases of the sub-bituminous coal emanating from the 2004 RFP and the opportunity presented by the Indonesian coal?

A. It is my stated opinion that both of them could have existed. You could have captured the value of the blend based on 2004, and then later in 2007 when this opportunity became available, it could have been captured, too, if it was a real savings. I do not feel that it does mitigate it.

Q. Yesterday you were asked some questions about the design basis coal. Preliminarily, and to set the stage for further questions, would you describe for the Commission your understanding of the significance of the design basis coal, speaking generally at this point.

A. When you design a unit you have to decide what kind of coal you expect to burn in it, and you come up with a design basis coal. And the design basis coal is going to have all the characteristics of a coal that you would expect to burn and then the engineers go about designing the unit in such a way that it will successfully burn around that design basis coal.

Q. And as you understand it, what is the design basis fuel for Crystal River 4 and 5?

A. It was a 50/50 blend of eastern bituminous coal and western sub-bituminous coal.

Q. And what is the significance of the geographical designations in the design basis coal?

A. It was a shorthand for saying bituminous eastern coal and sub-bituminous coal out of the Powder River Basin area. Powder River Basin being a broad term not restricted to states.

Q. As you understand the use of the design basis coal, is there any relationship between the specification of the design basis coal on the one hand and reliability of deliverability on the other?

A. No. It's a coal, the expectation is that you are going to be able to get that coal to your plant.

Q. Is the purpose of the design basis fuel to limit the geographical origins of the coal to be burned

in the unit?

A. No. The decision on a design basis coal is to sort of set some parameters for design. What will then happen is the engineering company would meet with the utility who is purchasing this and decide how broad a range around that design coal they want that plant to be built. Whether they want to build a narrow plant that can only burn one particular narrow kind of coal, or they want to broaden around that design basis midpoint so that they can burn a wider range of coal, that is a decision made between the buying utility and the engineering firm to implement that decision.

Q. There were some questions and answers yesterday about the e-mail from the representative of PT Adaro describing that there was -- that firm had no coal to offer in 2007. What is the time frame of the -- what is the period during which your recommendations would have effect in terms of deliveries to Crystal River 4 and 5?

A. The bid was made in the February 2006 time period. The expectation would be if you were going to buy that you would put that in place, contract for that within 30 or 60 days, around that time, and deliveries would have started January 1st, 2007.

Q. Do you see any relationship to the bid that

was submitted in February 2006 and the statement that the same company had no coal to offer in 2007?

A. I do not see that different time frame.

Q. Again drawing on your experience with being involved with RFPs, bids, contracting, do you have an opinion as to what the consequences would be if an entity were to submit a bid and then it were discovered that the bid had no coal to back it up?

A. It would be very damaging to the bidders, the coal company's reputation. It would make every bid thereafter suspect and would have a serious impact on that company's reputation and success.

Q. Now I believe yesterday there was reference to the practice of submitting bids that are subject to prior sale. Based on your experience, is that typical or atypical in the industry?

A. I'd say that was fairly typical. And I would also say that if a company makes that kind of an offer subject to prior sale and they sell it, they are very quick to inform the utility that that coal is no longer available to protect their reputation, and they would usually do that in writing.

Q. You were asked some questions about the delivery risk associated with the Indonesian coal. Do you recall that question and answer?

A. I do.

Q. Do other coals at other geographic locations have delivery risks associated with them?

A. Yes. All coals have their own sets and kinds of risk about delivery. Yes.

Q. Given that each origin of coal has associated with it a delivery risk, in your experience and in your opinion what's the best way for a utility to manage those risks?

A. The best way to manage risks about either both price and delivery is to have a range of options that you can call on. So if you buy coal by rail out of Central Appalachia and buy coal by barge down the Mississippi River and buy coal by oceangoing vessels from South America or Indonesia, then you've got multiple delivery paths. If one of them becomes disrupted, you can increase the other flows and mitigate your risk that way.

Q. You were asked some questions about the, the graph showing, that's captioned Coal Costs/Quality Gradient, and I believe in your answer you said time is a more important consideration than quantity. Do you remember that question and answer?

A. Yes, I do, and that was my response.

Q. Would you elaborate on what you meant when you

said that time is a more important consideration?

A. The coal market is a volatile market; it goes up and down over time. And so pricing of any kind of an offer, spot coal, contract coal, is heavily dependent on what is the market expectation at the time an offer is made. Is the supplier expecting the prices to go up, do they expect them to go down? So they're trying to tie in a price now to get a higher price than when it goes down. All those expectations, everybody has got one, the supplier has got a set, the buyer has got a set, it drives the price significantly. And in a volatile market, just like buying stock in the stock market, what are your expectations? That makes a big difference about what you're going to pay.

The quantity is going to be based on what the coal supplier has got on hand, issues that really are less important to everybody than the timing and market expectations.

Q. Can you determine the two different periods of time that are reflected in this Coal Cost/Quantity Gradient handout?

A. I can define the bottom number because as I understand it that was the PRB Peabody bid that was for the test burn. I don't know the timing or even what the top box is based on.

Q. And to be clear, do you accept the Peabody, the cost of the Peabody transaction as representative of what the price the utility would have paid for deliveries in 2006?

A. Bought in that month at that time that was a, a price that was available. Yes.

Q. But is it the price that was available to Progress Energy had it taken advantage of the offers in the earlier RFP?

A. If they had bought that same quantity coal in 2004, it would have been a lower price, again, because of timing.

Q. The, the graph shows a straight line connecting two points. In your experience, is there a straight line linear correlation between the data points shown on this graph?

A. It is my experience that there is not a straight line correlation between quantity and price. It is too dependent -- even in the same time period it's depending on what a supplier has got, what he's got available, how many tons he's got to sell.

Q. I believe Commissioner Argenziano asked you a question about the design of the unit that corresponded to the design basis fuel. Can you describe whether there is a range of design criteria that range from

conservative to less conservative design principles when building a power plant corresponding to a design basis fuel?

A. Yes. Again, I describe the design basis fuel as sort of the center point or a point on the design, and then the decision is to, how wide do we go around that design basis fuel. If, for example, the design basis fuel has a particular slagging and fouling characteristic -- slagging and fouling is what occurs in a boiler, can occur in a boiler to clog up the air flow passages where the hot gases flow through the boiler. If you have a lot of slagging and fouling, it begins to clog up around that and the flow becomes restricted, the unit becomes less efficient, lots of problems occur. So that's an important design characteristic.

So you look at the design fuel and say, okay, this fuel has got these kind of characteristics. So you can then agree, decide to buy a unit that's built in a very narrow range around those kind of characteristics, or you can say, no, let's build one that's more conservative so that you can handle more slagging and fouling or let's buy one that's very conservative so that almost you can't slag and foul it up, it's not going to be a problem. All those cost more money. Every time you take an expanding step, it costs more

money. And so that's the decision that gets made.

But, yes, you start with the design fuel and you buy around that design fuel depending on do you want a Volkswagen or do you want a Lexus.

Q. Now with respect to that continuum you described from less conservative to more conservative, where would Crystal River Units 4 and 5 fall in that?

A. Crystal River, and I complimented the prior management, was a Lexus. It was one that was built to have a wide range of capability around that design fuel so that you didn't just have to buy that narrow design fuel. You could buy a significant range of coals that were worse and better than that design fuel.

Q. Staff asked you a question about the Vista model results for 2004 and 2005. And in response you said that you have learned that, as applied, Vista apparently did not consider sodium well. Would you elaborate on what you meant by that answer?

A. Sodium is a problem. Sodium is one of the causes of slagging and fouling. That's an indicator. Sodium is found in the ash of the coal. It's a small amount, but what it does is it starts to stick on the walls of the tubes and start this clogging process. And it stays in sort of a liquid kind of state. And so once it's there, it catches the next thing that comes along

and it can build up over time. Plants have sub-blowers that use steam to knock that stuff off the wall and keep it clean; sort of a high-pressure cleaning process. But it is a problem.

And the Spring Creek coal, not because of the state it's in but just because of geological events that occurred back in the billions of years ago, it has a high sodium content. And people buy coal who are aware of that say that that's something that you've got to really be prepared to take care of.

And so it would be my expectation that the Vista model would model that characteristic. Because sodium is such a swinger of effects, if the sodium -- if the model was any good, it would say an 8 percent sodium coal is a whole lot worse than a 1 percent sodium coal. And it should have showed up; it should have caused that coal to have a higher utilization cost. And the fact that it still ended up number one in the bid process makes me suspect that it either was not run, the Vista model was not run, or less likely that the Vista model does not consider sodium.

But in any case, in reality I will admit it should not have ended up number one, but it did. And in my process I did not second-guess the model. I did not second-guess the way Progress Energy ran it and the fact

that it came up number one.

Q. Now you've mentioned in earlier answers that Crystal River 4 and 5 were designed conservatively to accommodate slagging and fouling properties in coal. Do you recall saying that?

A. Yes.

Q. Is the Vista model configured in a way that reflects the individual design and architecture of the power plant that's being modeled?

A. The model is intended to be customized to fit the specific design of the plant, both the physical design and their cost structure. Because what you're going to end up with is a cost of how much does it cost to burn this particular coal.

So if it means that, for example, sodium is going to cause slagging and fouling and you're going to have to run the precipitator, I mean the sub-blowers more with that coal than you would with a clean coal, then that's going to add to the cost. So what you're going to end up with is more cents per million, cents per ton because of that. That's what the model is supposed to do. You're supposed to model it based on your unit.

Q. If the Vista model is configured to the conservative design of 4 and 5, would the ability of

the, of the units to accommodate coals that have the slagging and fouling properties be reflected in the output of that Vista run?

A. Yes. And, again, the Vista run is not going to decide by itself what coal you're going to buy. What the Vista model would do is, okay, if you compare Crystal River 4 and 5 to some other less conservative unit, it's going to cost less to burn that coal in Crystal River than it is in this other one. It's still going to cost more to burn a high-sodium coal in Crystal River than a low-sodium coal, but it's not going to cost as much as other units. So it's going to take that conservatism into it. It's going to say, yes, there's a cost for burning that low-sodium -- high-sodium coal. Now you decide based on all the other factors, you the company, is it still a good thing to do.

But, yes, it's going to take into account the fact that that plant was designed with wide spacing between its tubes so that it takes a longer time to bridge that over, maybe it doesn't ever get bridged over, and it can be kept clean. Yes.

Q. Does the fact that the Spring Creek coal or the blend of which Spring Creek coal is a portion in the second bid for Kennecott, does the fact that that coal is going to be blended 20/80 with bituminous coal

containing less sodium have an effect on the extent of any sodium impacts in Crystal River 4 and 5?

A. Absolutely. Because it means that you're only putting 20 percent of the total flow of coal into that unit is the high-sodium coal. It's still going to have some impact, but it's significantly reduced by that ratio so that you can't look at just Spring Creek coal and say, ooh, this is bad, because it's -- a lot of the Btus, a lot of the flow is going to come from the bituminous coal that doesn't have the problem to combine with the sub-bituminous Spring Creek coal that does have the problem. So it reduces the problem.

Q. Have you had an opportunity to calculate the effective sodium content of the 20/80 blend when Spring Creek is blended with, with bituminous coal?

A. I did look at that and I did run a sheet to evaluate, show that.

Q. And what does the calculation, what does that calculation show?

A. I'm going to have to ask for my sheet that I ran that I hope Earl's got.

CHAIRMAN CARTER: Mr. McGlothlin, would you yield for a moment, please, sir?

COMMISSIONER SKOP: Mr. Chair, I probably can reserve until Mr. McGlothlin is done.

CHAIRMAN CARTER: You want to wait? Okay.

MR. McGLOTHLIN: I'm sorry. Was your question how much longer do I have or do I want to yield?

CHAIRMAN CARTER: It's kind of hard to hear in here sometimes, isn't it?

MR. McGLOTHLIN: I'm sorry.

CHAIRMAN CARTER: You may proceed.

MR. McGLOTHLIN: Mr. Poucher is distributing a document captioned Effects of Blending Sodium in Different Coals. May we have an exhibit number on that?

CHAIRMAN CARTER: Commissioners, for the record this will be Exhibit Number 57. Exhibit Number 57. We'll just say Effects of Blending Sodium in Coal or something like -- is that okay, Mr. McGlothlin? Will that work for you as a short title?

MR. McGLOTHLIN: Yes, sir.

(Exhibit 57 marked for identification.)

COMMISSIONER SKOP: Mr. Chair.

CHAIRMAN CARTER: Commissioner Skop.

COMMISSIONER SKOP: Thank you, Mr. Chair. We've been going for quite some time. Would it be possible to take like a brief three-minute break or a five-minute?

CHAIRMAN CARTER: Mr. McGlothlin is in his stride.

(Laughter.)

COMMISSIONER SKOP: Duty calls.

MR. McGLOTHLIN: A break is fine.

CHAIRMAN CARTER: Is that okay with you, Mr. McGlothlin?

MR. McGLOTHLIN: Yes, sir. Yes, sir.

CHAIRMAN CARTER: Okay. Then let's do this, Commissioners. Let's take five. We're on recess for five. We'll come back at, on the hour.

(Recess taken.)

We are back on record. Mr. McGlothlin, you may proceed.

MR. McGLOTHLIN: Thank you.

BY MR. McGLOTHLIN:

Q. Mr. Putman, prior to the break we had distributed a document that's been marked Exhibit 57. Do you have it in front of you?

A. I do.

Q. The first page is captioned Effect of Blending Sodium in Different Coals. Would you describe for the Commissioners the information that is contained on that page?

A. This is a discussion of what happens as you blend sodium. The first thing you need to know is that sodium is measured in terms of percentage in the ash,

not percentage of the overall coal. First you take out the ash part of the total coal and then you divide it up on a percentage basis to the components that are in the ash, and sodium is one of those that's measured that way.

So that a CAPP coal with an ash of 15 percent and a 1 percent sodium produces a relatively small amount of sodium. The sub-bituminous coal that we're talking about with a 5 percent ash and an 8 percent sodium produces a small amount of sodium. And if you follow the numbers underneath that, CAPP coal sodium for 800,000 tons, and I'm making a 80/20 blend, 800,000 tons of CAPP coal with a 13 percent ash, you get 104,000 tons of ash. And if you multiply that by a .01 sodium, you get 1,040 tons of sodium. And if you combine that with a sub-bituminous coal, twenty -- 200,000 tons, again making the 80/20 blend, with a 5 percent ash, you get 10,000 tons of ash. With the sodium part of that of 8 percent of the ash, you get 800 tons of sodium. You blend that, you get this one million eight hundred -- I mean 1,840 tons of sodium divided by the total tons of ash, not the tons of coal but the tons of ash, and you get a 1.61 percent sodium in this blend.

So, again, you start off with a high sub-bituminous Spring River kind of sodium of 8 percent,

you blend it with a low-sodium CAPP coal, and you end up with a number 1.61, which is down more in the normal kind of range of what you'll see in, in other kinds of coal.

CHAIRMAN CARTER: Mr. McGlothlin, would you yield for a moment?

MR. McGLOTHLIN: Yes, sir.

CHAIRMAN CARTER: Had you finished, Mr. Putman?

THE WITNESS: Pardon?

CHAIRMAN CARTER: You go ahead and finish your answer.

MR. McGLOTHLIN: Have you completed your answer?

THE WITNESS: Yes. That's my answer. Yes.

CHAIRMAN CARTER: Okay. Would you yield for a moment?

MR. McGLOTHLIN: Yes, sir.

CHAIRMAN CARTER: Thank you.

Commissioner Skop, you're recognized.

COMMISSIONER SKOP: Thank you, Mr. Chairman.

Just a quick point of clarification on the calculation that we're looking at in terms of the blending of different coals. Are we to assume that the sub-bituminous coal listed in this exhibit is the

Springhill, I mean, Spring Creek coal?

THE WITNESS: Yes.

COMMISSIONER SKOP: All right. Thank you.

CHAIRMAN CARTER: You may proceed.

BY MR. McGLOTHLIN:

Q. Thank you, Commissioner. That was going to be my next question.

And just to follow through on that, Mr. Putman, the CAPP coal there, is that representative of the type of bituminous coal that would be blended with the Spring Creek coal at Crystal River 4 and 5?

A. It's representative of CAPP coal. Yes.

Q. And to be clear, the Spring Creek coal that was shown having a sodium percentage of 8 percent, on a standalone basis and for the Commissioners, what does the effect of, what does the effect of blending 20/80 with the CAPP coal have on the corresponding sodium content of the blended coal?

A. The blended coal comes out to be a 1.61 percent of the ash is sodium.

Q. Now if you know, do power plants have associated with them what would be a normal range of the sodium content that could be expected to accommodate without difficulty?

A. Yes. Any power plant, once built, will have a

range that it can accommodate and then it will probably have a range of preferred level of sodium. I mean, power plant operators like to have perfect coal and so they've got ones they prefer, but then the unit was designed to handle a range.

Q. What would the normal range be in your experience?

A. I'm not sure there's a normal range. Every plant is different, and it goes back to what were the decisions made at the time the unit was purchased.

Q. Have you had occasion to compare the effective content of sodium, the 1.61 percent associated with this blend, with the corresponding sodium content of design basis fuel for Crystal River 4 and 5?

A. It falls within an acceptable range of the design fuel.

Q. What would you conclude from that, from that comparison?

A. That this plant, Crystal River 4 and 5 were built and designed to burn a coal range that is actually bigger than this 1.61 percent. So it would -- these units were built to burn this kind of coal.

Q. Mr. Putman, have you heard the term "sodium conditioning" as it relates to power plant operations?

A. I have.

Q. What does it mean?

A. It has to do with the gas flow through the precipitator. Sodium and working with ash allows the resistivity of the ash to be more conducive to being collected in the precipitator. So whereas sodium may be a problem in the boiler, it becomes a help in the precipitator. Air flow going through the precipitator is -- the precipitator is built electrically. It creates an electric field. The ash flows because of that electric field based on its resistivity.

The resistivity of a low sulfur coal makes it more difficult to collect. The resistivity of sodium added to that combines with the ash, makes the ash easier, more effective to collect.

So some plants who are burning a low sulfur coal and have a small precipitator add sodium into the air flow to allow that smaller precipitator to be more effective to collect the ash flowing through the precipitator.

Q. If you know, do any of the producers of coal add sodium at the mine in response to a request that it be done by utilities?

A. Yes. Several of the producers in the Wyoming area that produce a low sodium and low sulfur coal offer as part of a deal that they will put some sodium into

the coal as it's loaded onto railcars so that they don't have to install a sodium injection system at the plant. The coal has sodium as it flows through the boiler and through the precipitator.

Q. Mr. Burnett asked you if your calculations assumed that the, whether the quantity of waterborne coal that you included encompassed those tons delivered at the Alabama State Docks. Do you recall that?

A. Yes.

Q. And he asked you if you were aware that Progress Energy does not currently have a contract for blending services at Alabama State Docks. Do you recall that?

A. I recall that.

Q. And you said the fact that the company does not currently have a contract would not alter your decision to include those tons of coal. Would you explain why that would not affect your analysis?

A. The Commission last, in the last docket said that it would be a good thing to blend 20 percent coal offsite. They would not recommend or support blending onsite. They said it would be blended offsite.

Practically that means that that blending needs to occur at a place where you can put the bituminous and the sub-bituminous on the ground, blend

it by weight and put it back into a barge to take to the plant. You could also do that at a rail point, but there's not a practical location to do that. So that's why I focused in my analysis on waterborne coal.

But, so we looked at the coal that was actually moved in tons to Crystal River in 2006, 2007 and said in this hypothetical if they were to have bought coal, Powder River Basin coal with the intent to blend it with all waterborne coal, some of that sub-bituminous coal would have gone to IMT, some of it would need to go to another place where waterborne coal was being received in order to blend with that waterborne coal. That other place, especially in 2007, was at the Alabama State Docks.

So if they were implementing the plan to have bought this sub-bituminous coal and to blend it, they would need to take it to where the bituminous coal was, which was at the Alabama State Docks, which would assume that they would then go and get an agreement, a contract with the State Docks to blend it just like they have a contract at IMT to blend. So that's why I assumed in my study because I am familiar with Alabama State Docks and I know they do blending services.

Q. Does Alabama State Docks possess the facilities with which to blend coal for customers?

A. Absolutely. They are proud of their ability to blend coal. That's what they do.

Q. Do they hold themselves out as providing that service for their clients and customers?

A. Yes, they do.

Q. If Progress Energy had an opportunity to lower its fuel costs and lower the customers' bills accordingly by blending sub-bituminous and bituminous coals at Alabama State Docks, would they have an incentive to enter such a contract?

A. Would Alabama State Docks have an incentive?

Q. Would Progress Energy?

A. Yes. Progress Energy would have an incentive if they were looking out for their customers, and State Docks would have an incentive to capture that business.

Q. Mr. Burnett asked you some questions about the subject of the possible double-counting of SO2 credits in your calculations. Do you recall that?

A. I do.

Q. And you said that you are not persuaded that the evaluation exercise incorporates SO2 in the same manner as the emission allowance calculation. Do you recall that?

A. I do.

Q. What efforts have you made to ascertain the

extent to which there is or is not double-counting in your calculation?

A. I looked at the evaluation sheets for both the 2006, I mean, the 2004 inquiry and for the 2006 inquiry. Those are in my exhibits: For 2004 it's DJP-6, for 2006 it's DJP-8.

For purposes of illustration, let's look at DJP-8 because it spells out the utilization cost. If you look at Page 1 of 2, and this again is a long spreadsheet as opposed to a paging, you have to sort of walk across the lines to get there. But if you look at just for demonstration purposes the first bid, Glencore LTD, and you were to walk all the way across that, you would come to a line on the second page called utilization cost per ton, straight ton. In this first example that is 18 cents per straight ton is the cost of utilization of this coal as determined by Progress Energy.

If you go back a page, on this sheet there's a, again on that same line, an SO2 price of $1,514. This is the cost of an allowance as they viewed it to exist when they made this evaluation in February 2006. $1,514 for cost of an allowance.

So now if you were to run a calculation, and I would like to pass around a sheet of paper --

CHAIRMAN CARTER: One moment before you proceed further. If you would yield for a moment.

COMMISSIONER SKOP: Thank you, Mr. Chairman. I'm trying to follow the witness and I'm just not seeing those numbers on the data we have. And I don't know if there's a confidential issue or what have you, but I'm trying to look at the same data and follow along. So can somebody help me out with that?

MR. McGLOTHLIN: I may be able to help.

BY MR. McGLOTHLIN:

Q. Mr. Putman, do you have a more general illustration of the points you're making that you can provide the Commissioners?

A. I do, but it's important to be able to follow that on the sheet. I will --

MR. McGLOTHLIN: Okay. I don't think there's a confidentiality problem.

THE WITNESS: We cleared that last time.

COMMISSIONER SKOP: I guess I'm not, I'm not even seeing it on the sheet. That's the problem.

THE WITNESS: You got DJP-8 out of my direct testimony?

COMMISSIONER SKOP: I believe so.

MS. BENNETT: Mr. Chairman.

CHAIRMAN CARTER: Yes, ma'am, Ms. Bennett.

MS. BENNETT: In the attachment to the testimony DJP-8 is confidential, but in yesterday's hearing Progress released the confidential information.

CHAIRMAN CARTER: Do you remember that number?

MS. BENNETT: And it's Exhibit 50.

CHAIRMAN CARTER: 50? Okay. Thank you, Ms. Bennett. Commissioners.

THE WITNESS: I apologize.

CHAIRMAN CARTER: Mr. McGlothlin, you may proceed.

THE WITNESS: Let me go back and make sure everybody is there. Does everybody see Glencore LTD on that? Y'all are still not seeing it.

(Pause.)

Is there a way I can help?

CHAIRMAN CARTER: You may proceed, unless you're waiting on Mr. McGlothlin.

THE WITNESS: No. I'm -- if you follow that top line across on the first --

MR. McGLOTHLIN: First --

CHAIRMAN CARTER: Have you got a question?

MR. McGLOTHLIN: I think we were concerned that the Commissioners were not finding the specific reference.

CHAIRMAN CARTER: We got it.

MR. McGLOTHLIN: Everybody has it? All right.

CHAIRMAN CARTER: We got it.

BY MR. McGLOTHLIN:

Q. Please proceed, Mr. Putman, with your explanation.

A. Okay. I'll just start on the first page again. Glencore LTD, follow that top line across, on the first page you'll find an SO2 price, $1,514. That is the allowance price as assumed in the time they did this sheet.

You proceed on to the second page, still on that top line, again it's a continuous wide page. You'll find towards the left-hand side a utilization cost in dollars per ton, and that is 18 cents as the utilization cost. Again, that is the output, as I understand it, from the Vista run or some other similar evaluation of the impact of the cost of that particular coal in that particular unit would cost 18 cents.

Well, then I ran a calculation check and I would like to have this passed out. And in keeping with the other sheet, this one is also a wide sheet put together in sort of short notice, so I apologize. You'll have to unstaple it.

All right. This is a calculation that you would go through to determine for a particular coal how

many, how much you're going to have to spend in a allowance cost based on a ton of this coal being burned, assuming that there is no, that it's all, you're paying allowances for all the emissions. Not just emissions over some standard, but for all the emissions out of the stack for sulfur.

And what you do is you take the quality of the coal in Btus per pound, convert that into tons, and then convert that into pounds of SO2. You multiply it by the pounds of SO2 per million Btu. We'll talk about that. Multiply that in another conversion and you multiply it by the allowance cost, which is in dollars per ton SO2, and you come out with the dollars per ton. Again, this is not my best work, but hopefully we can work our way through it.

When you remove the two conversions of 2,000 pounds per ton that cancel each other out, you end up with an equation that you take -- and, again, the example under that of the 12,200 Btus per pound is that same Glencore coal. If you follow that line across, you would find that that is a 12,200 Btu per pound. You multiply it by its sulfur SO2 content, which you will find on the second page, the third column, SO2 is 1.20. What that is is in terms of pounds per SO2 per million Btus. You multiply that by the allowance cost, which is

$1,514, and you run all that math and you will find that the cost of burning that coal in money you would spend in allowances is $22.16. That's what it's going to cost you to burn a ton of that coal. And that's a very big number and it's a whole lot higher than the 18 cents utilization cost shown on their chart.

And if you were to run those numbers and you looked down at that utilization cost chart, you'll see they're all significantly smaller than $22. But if you were to run this same equation for all those numbers, you would find that they don't match, that the cost in allowances alone is higher than the total utilization cost calculated by Progress Energy. So that said to me that the utilization cost that's shown on this sheet did not include the use of allowances based on the $1,514 that they assumed at that point.

So that's what drove my assumption that the Vista model, the utilization model did not include the cost of sulfur allowances. And so that's why it was necessary to follow the procedure that was developed last case and run a comparison of the cost of allowances for the coal as purchased and as received, the base case, and compare that to the cost of the blended coal that was proposed, and you come up with a savings by using the blend on just the allowance part of it.

MR. McGLOTHLIN: If I may -- first, Chairman Carter, could we have an exhibit number assigned to this?

CHAIRMAN CARTER: Okay. That would put us to, that would give us Exhibit Number 58. 58. A title, Mr. McGlothlin, short one.

MR. McGLOTHLIN: I'm trying -- the short is the tricky part. Treatment of sulfur in evaluation versus emission allowance cost.

CHAIRMAN CARTER: How about Sulfur Evaluation Treatment, would that work with you?

MR. McGLOTHLIN: I agree that's shorter.

(Exhibit 58 marked for identification.)

CHAIRMAN CARTER: Okay. You may proceed.

MR. McGLOTHLIN: Only because that was a lengthy explanation of a mathematical exercise, I'd like to ask a couple of summarizing questions, if I could, for the record.

CHAIRMAN CARTER: You may proceed.

BY MR. McGLOTHLIN:

Q. Mr. Putman, do I understand correctly that Exhibit 58 is a mathematical computation that's based on the information shown for the Glencore coal that is the first entry in your DJP-8?

A. That is correct.

Q. And you referred to a utilization cost of 18 cents. Is that the credit or penalty that the evaluation process assigns to Glencore on the basis of its sulfur content?

A. On the basis of all the contents of that coal as compared to the utilization to the plant design. So it's not just sulfur. It would be sodium, it would be sulfur, it would be Btu, moisture, all the contents of the coal.

Q. And what is the $22.16 with which you are comparing the 18 cents?

A. It is the cost only of burning that coal based on its sulfur SO2 emission and the cost of allowance.

Q. If the evaluation process took into account fully the cost of emission allowances, SO2 emission allowances, what would you, what would you expect the relationship between the two values that you've identified here to be?

A. It would be not quite a summation of those two numbers, but it would be close to a summation of those two numbers.

Q. And what does the differential between, the differential between 18 cents on the one hand and $22.16 on the other hand tell you with respect to whether you have double counted the benefits of sodium,

excuse me, of sulfur in your analysis?

A. It appears that the evaluation did not include the effect of allowance costs, and therefore there was not any double-dipping done.

Q. You were provided an answer to an interrogatory that FPL, in which FPL indicated it had rejected some Spring Creek coal because of high sodium content. Do you recall that document?

A. I have that in front of me.

Q. Does it surprise you that the Scherer operation would not be interested in the Spring Creek coal?

A. What this says to me is that apparently Spring Creek was a low-cost bid because otherwise they wouldn't even comment on it, but that they elected to reject it. But Plant Scherer was not designed to burn sub-bituminous coal, so its design compared to its designed coal would be much more conservative. So it would be much more of a problem for that plant to burn a high-sodium coal because the tubes, again, would be closer together causing more of an opportunity for bridging by slagging and fouling than the Crystal River one. So it does not surprise me that Scherer would have been more inclined to reject a high-sodium coal.

Q. You've spoken to the design, the difference in

the designs of the plant. In response to a question from Mr. Burnett, you acknowledged that at Scherer they burn 100 percent sub-bituminous coal, do they not?

A. They do.

Q. Compared to the effect of the blending 20/80 on the sodium content at Crystal River 4 and 5, what would the corresponding percentage of sodium be if Scherer were to burn 100 percent Spring Creek coal?

A. It would be in the 8 percent range of full Spring Creek sodium.

Q. And that 8 percent is compared to -- what was the effect of blended sodium content for the Crystal River 4 and 5?

A. 1.6 percent.

Q. Mr. Burnett asked you to agree that with respect to the Spring Creek coal the transportation costs of that particular coal would exceed the cost of the commodity. Is that unique to Spring Creek coal or is it true, applicable to other western coals as well?

A. It would be true for all the Powder River Basin coal as I use that term. Moving to the southeast United States, the transportation will be a bigger component than FOB price number.

Q. Mr. Burnett asked you some questions regarding the relationship between the use of the Spring Creek

coal at Crystal River 4 and 5 on the one hand and the installation of the scrubbers in those units on the other. Are you aware of the status of the scrubber project at Crystal River 4 and 5?

A. Only very generally. Generally.

Q. With respect to whether they are operational now or when they are expected to be operational, do you have information about that?

A. It's my understanding they are not operational now but under construction and have a not too distant start-up time, but I don't know the specifics.

Q. So the scrubbers would be 2009 or later; correct?

A. That's my understanding.

Q. And for what period of time were you recommending that the utility should have purchased and delivered Spring Creek coal to Crystal River 4 and 5?

A. In reality I said they should have bought it in 2005 and 2006. We're only focused on 2006 here though.

Q. Would -- if they have delivered Spring Creek coal in 2005 and 2006, would that have interfered with anything the scrubbers are doing in 2009?

A. No.

Q. Mr. Burnett asked you some questions about the

unloading rates at IMT. Do you recall those questions?

A. I do.

Q. What is your understanding of the value or the rate that Progress Energy contends should be applied to calculate an adjustment to your refund amount?

A. How many dollars do they say should be adjusted?

Q. No. What rate, what unloading rate did they use and what does it represent, if you know? Tons per hour is what I'm talking about.

A. I'm not sure. The number 12,000 tons per day is the number that sort of is in my head.

Q. If that is the maximum that's guaranteed by the terminal, does that necessarily mean that's all they can do?

A. No. You normally would guarantee something that you are absolutely certain you can do that would have some upside opportunity.

Q. You were asked about the low sulfur content of the Indonesian coal. If you know, what is the sulfur content of the Indonesian coals that were offered by Adaro and Kideco?

A. One of them was one percent and the other one was one and a half percent sulfur.

Q. And would they be blended 20/80 with the

bituminous coal?

A. Yes, as required by the Commission.

Q. Would the blending of the Indonesian coal containing the low sulfur content, would the bituminous have an effect on the overall average of the sulfur content?

A. Yes. If you blend the coal, you get a different blended average.

Q. And have you calculated what the blended -- what the sulfur content of the blended coal would be?

A. Yes, I have, and that's attached to the earlier handout.

Q. Tell the Commissioners what you did in that regard.

A. This is Page 2 of -- I'm not sure what the number of that was. It was the same sodium blending a minute ago.

CHAIRMAN CARTER: Exhibit 58, the one you told us to take apart.

THE WITNESS: No. Fifty-eight has got a cover sheet.

CHAIRMAN CARTER: Okay. Got it.

THE WITNESS: It says cross-examination exhibit and then it has got two pages under that.

CHAIRMAN CARTER: That is not 58.

MS. BENNETT: It's 57.

CHAIRMAN CARTER: Okay.

THE WITNESS: Now we are looking at Page 1 of that. It says effect of blending sulfur in different coals. All right. This is, again -- here sulfur is measured in percentage of the total weight of the coal. Remember, sodium was total weight of the ash. This is the total weight of the coal. We are, again, trying to build an 80/20 blend of sub-bituminous coal using 800,000 tons and 200,000 tons.

I looked at two cases. Case 1 has a CAPP coal sulfur of .74 and a sub-bituminous coal of .32. This would be more in line with a Spring Creek coal from the sulfur standpoint, and you would blend that and you will end up with tons of sulfur for the CAPP coal of 5,920 tons of sulfur blended with the sub-bituminous coal of 640,000 -- 640 tons of coal, and so the blend of that 1 million tons is .66 percent sulfur.

Case 2 is more a sub-bituminous Indonesian coal still blending with that CAPP coal of .74 percent, but now the sub-bituminous coal is .1. You blend that. And, again, this time for the sub-bituminous coal you only produce 200 tons of sulfur. You add that, divide that by the 1 million tons of coal and you get a blend of .61 percent sulfur.

Q. To be clear, Mr. Putman, in each of these scenarios have you chosen values for the CAPP coal that would be representative of the bituminous coal with which the sub-bituminous coal would be blended at Crystal River 4 and 5?

A. Yes.

Q. For Case 1, have you chosen a sulfur value that would be typical of Powder River Basin coals that would be blended 20/80?

A. Yes. Of Powder River Basin coal, yes.

Q. And in Case 2, have you included the sulfur content that was specified by the producers of the Indonesian coal that bid into the 2006 RFP?

A. For one of the bids, yes. One of them was .1 and the other was .15, yes.

Q. And what is the effective blended content of sulfur with the more typical PRB coal as blended?

A. .66 percent.

Q. And what is the corresponding effective blended content of sulfur when CAPP coal is mixed with the Indonesian at 20/80?

A. .61 percent.

Q. Now, as I understand it, the concern with respect to the very low sulfur content of the Indonesian coal is that it could be too low and, therefore, could

have a deleterious impact on the operation of the precipitator, is that correct?

A. That's correct.

Q. Are you familiar with the range of sulfur content that the precipitators installed at Crystal River 4 and 5 can accommodate?

A. Again, they designed the precipitators in a conservative manner. They built a large box, a large box means that air flow has more time to pass through the precipitator, more time to be exposed to the electrostatic field, more time for ash to be collected. So that was the design. As I sit here, I don't know the exact number of the range for sulfur, but it was a wide range from a very low to a higher sulfur coal.

Q. Would the values .66 and .61 fall within the range, to your knowledge?

A. Yes.

Q. Now, one asks what is the ash --

A. Actually, I now have a piece of information.

Q. Okay.

A. Looking at the designed fuel, the designed fuel for the blend was a sulfur of .49 percent. So this coal at .61 and .66 hundredths is a higher sulfur than this was designed to handle. Again, the problem is if you go lower than the design then you would have some

problems. If you were above that, then the precipitator will perform adequately.

Q. What is the ash content of the Indonesian coals that were offered?

A. Extremely low. The ash for the PT Adaro was 1.2 percent, for the Kideco, PT Kideco it was 3 percent.

Q. And what would be corresponding more typical ash content of either the CAPP coal or a typical PRB coal?

A. A typical PRB is going to be around 5 to 6 percent, a CAPP coal is going to be in the 8 to 12 percent range.

Q. What is the significance, if any, of the far lower ash content of the Indonesian coal for performance in the boiler and the performance of the precipitator?

A. Lower ash is extremely valuable in a coal. We talked about that sodium is a measure of percent of the ash. So if you start with a smaller quantity of ash, even if you have the same percent, it's going to be less sodium to stick on the walls of the tubes and cause problems. So lower ash removes all the bad stuff that's in coal, and so it is very valuable. You don't have to collect it in the precipitator, because that is what precipitators do is collect the ash. There is a lot less to be collected. You have to dispose of ash. You

have got to build a pond to put it in. Lots of costs involved with dealing with ash, so less is extremely valuable.

Q. You were shown a document which I believe was in the nature of a news article or a press article to the effect that the Scherer unit plan to test some Indonesian coal. Do you recall seeing that?

A. Yes, I have it in front of me.

Q. And you inquired as to the publication date. What is the significance of that?

A. Again, timing is everything. It has to do with when they were going to be trying to buy coal, when they were going to try to test coal, and put it into a perspective of this case. And to my understanding it was August of 2005.

Q. Does the idea that Scherer would test the Indonesian coal surprise you?

A. No, it doesn't. Again, it's a reaction to a problem in the market. We have heard about delivery problems out of the Powder River Basin in 2005 that ran over into 2006. And because of that, domestic delivery risk, risks exists everywhere, it was necessary for Plant Scherer to either run out of coal or to buy a coal similar to what they were used to burning. The other choice is they could have gone back to bituminous coal.

They liked burning the sub-bituminous coal, so they went out and bought a relatively short-term period sub-bituminous coal that they were familiar with and they burned it. They did pay a premium for that, but they paid the premium as opposed to running out of coal. So if you're hungry, you'll pay a price.

Q. You mentioned that this publication date was August 2005, is that correct?

A. That's correct.

Q. And what was the time of the -- timing of the disruptions in the deliveries from the west?

A. Similar. Most of 2005, and had some impact in 2006.

Q. And when did Scherer begin to burn the Indonesian coal, if you know?

A. My review of the 4/23 data says in January of 2006 is when they began receiving it.

Q. Based upon the publication date of that article and the date when they began to burn the Indonesian coal, what do you infer about the time required to test the Indonesian coal at Scherer before beginning to burn it?

A. A relatively short time period to go from apparently leaking to the public that they were looking at it to when they actually had it received and burning

it, a relatively short time. It doesn't say anything about how long a particular test burn took in days once they had coal there.

Q. What is the relationship, if any, between the disruptions in deliveries they were experiencing from western coals, on the one hand, and the price they paid that Mr. Burnett showed you on the other hand?

A. Well, the sheet he handed out, which I don't disagree with, they were spending four or five dollars per million Btu when their normal price would be more like $2 per million Btu.

Q. The fact that they paid that in 2006, does that obviate, in your opinion, the legitimacy of the lower bid that was submitted to Progress Energy in February of 2006?

A. What it says to me is that there was a great opportunity for a low price buy in February 2006 that did not exist -- I mean, February -- yes, February 2006 that didn't exist later on.

Q. Mr. Burnett asked you some questions about particular aspects of the equipment at Crystal River 4 and 5, and asked you if you had done an analysis, and you said that you had performed some analysis after your deposition. With respect to the analysis that you performed, what documents did you review for that

purpose?

A. I looked at some B&W design information, a summary of the design of the plant.

MR. McGLOTHLIN: I'd like to distribute that to the Commissioners at this point.

CHAIRMAN CARTER: By the way, Mr. McGlothlin, we are fast coming upon the hour that we were going to be taking a break for lunch. How much more do you have to cover there?

MR. McGLOTHLIN: I'm nearing the end. Probably another ten minutes, fifteen at the most.

CHAIRMAN CARTER: Well, then we are not going to be able to accommodate that before lunch. This seems like a good enough breaking point, and we'll come back at 2:00. But, before we go, I just wanted to admonish everyone that we will finish today. We don't have another day on the calendar. So let's be prepared and -- you know, let's be prepared to do it. We are going to get it done today.

So with that, Commissioners, we will come back at 2:00 o'clock.

(Lunch recess.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTERS

COUNTY OF LEON)

WE, JANE FAUROT, RPR, and LINDA BOLES, RPR, CRR, Official Commission Reporters, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that we stenographically reported the said proceedings; that the same has been transcribed under our direct supervision; and that this transcript constitutes a true transcription of our notes of said proceedings.

WE FURTHER CERTIFY that we are not a relative, employee, attorney or counsel of any of the parties, nor are we a relative or employee of any of the parties' attorneys or counsel connected with the action, nor are we financially interested in the action.

DATED THIS 29th day of April, 2009.

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