BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Review of coal costs for Progress Energy Florida's Crystal River Units 4 and 5 for 2006 and 2007	)	Docket No. 070703-EI
	)	Filed: March 27, 2009

PROGRESS ENERGY FLORIDA'S RESPONSE IN OPPOSITION TO OPC'S MOTION TO STRIKE AND MOTION IN LIMINE

Progress Energy Florida ("PEF"), hereby files its response in opposition to OPC's Motion to Strike certain portions of the rebuttal testimony of Sasha Weintraub and OPC's Motion in Limine regarding any effort by PEF to refer to certain pre-filed testimony and states as follows:

Controlling Legal Standard

Motion to Strike:

Pursuant to Section 120.569(2)(g), Florida Statutes, the Commission may exclude "irrelevant, immaterial, or unduly repetitious evidence." Thus, a motion to strike must be directed at irrelevant, immaterial, or unduly repetitious evidence. See also Rule 1.140(f), Fla. R. Civ. Pro., providing that a party "may move to strike or the court may strike redundant, immaterial, impertinent, or scandalous matter from any pleading at any time." Cf. McWhirter, Reeves, McGlothlin, Davidson, Rief, & Bakas, P.A. v. Weiss, 704 So. 2d 214, 216 (Fla. 1998) ("A motion to strike matter as redundant, immaterial, or scandalous should only be granted if the material is wholly irrelevant, can have no bearing on the equities and no influence on the decision."). "Relevant evidence is evidence tending to prove or disprove a material fact." See

Section 90.401, Florida Statutes. If the evidence tends to prove or disprove a fact material to the issues in the proceeding the evidence should not be stricken.

Motion in Limine:

Likewise, motions in limine cannot be used to exclude relevant evidence. Rather, motions in limine should be narrowly construed to exclude improper but not relevant evidence. See Buy-Low Save Centers, Inc. v. Glinert, 547 So. 2d 1283, 1284 (Fla. 4th DCA 1989) (holding that generally "the purpose of a motion in limine is to prevent the introduction of improper evidence, the mere mention of which at trial would be prejudicial," and reversing order granting motion in limine). Indeed, Section 120.569(2)(g) provides that irrelevant and immaterial evidence shall be excluded "but all other evidence of a type commonly relied upon by reasonably prudent persons in the conduct of their affairs shall be admissible, whether or not such evidence would be admissible in a trial in the courts of Florida." §120.569(2)(g), Fla. Stat. If the evidence tends to prove or disprove a material fact in dispute in any way helpful to the trier of fact, then, the motion in limine must be denied.

Response in Opposition

As OPC admits in its Motion to Strike/Motion in Limine, OPC filed the pre-filed testimony of Robert Sansom in Docket 070001-EI on October 1, 2007. On October 4, 2007, PEF filed a motion to spin off the issues related to the cost of fuel at Crystal River Units 4 and 5 during 2006 and 2007 into a separate docket. The Commission granted PEF's motion in Order No. PSC-07-0842-FOF-EI, dated October 17, 2007. The Commission Clerk administratively moved the pre-filed testimony of Mr. Sansom from Docket No. 070001-EI to this docket, Docket No. 070703-EI on December 21, 2007.

Mr. Sansom, OPC's principal witness in Docket 060658 on issues of coal pricing, coal transportation pricing, and coal cost effectiveness, stated in his testimony that the assignment given to him with regard to his testimony in Docket 070001-EI was to "extend and implement the decision of the Commission in Docket 060658-EI to calendar year 2006." Sansom Testimony, Page 4, Lines 1-5 (Attached hereto as Exhibit A). In his testimony in this docket, Mr. Putman, OPC's new witness on coal pricing, coal transportation pricing, and coal cost effectiveness, states that in performing his analysis, he is "applying the parameters of the Commission's decision in Docket 060658-EI, and comparing the costs of the bids submitted to PEF for delivery in calendar years 2006 and 2007..." Putman Testimony, Page 6, Lines 3-5. Thus, one can see from the very face of the two testimonies that Mr. Sansom and Mr. Putman were asked to perform the same analysis regarding PEF's coal costs for calendar year 2006, a fact that Mr. Putman could not dispute in his deposition. See Putman Deposition, Page 18, Line 21 to Page 19, Line 2 (Attached hereto as Exhibit B).

Despite the fact that Mr. Sansom and Mr. Putman were asked to perform the same analysis for PEF's 2006 coal costs, Mr. Sansom came to the conclusion that PEF should be required to refund $14,235,491 (including alleged So2 damages) for PEF's 2006 coal purchases, while Mr. Putman came to the conclusion that PEF should be required to refund $28,064,770.11 (including alleged So2 damages) for PEF's 2006 coal purchases. Compare Sansom Testimony, Page 10, Lines 6-11, to Putman Testimony, Page 17, Lines 7-14; DJP-11; Putman Deposition, Page 23, Lines 6-9. When asked about the almost 100% increase in alleged damages between his testimony and Mr. Sansom's, Mr. Putman could only offer that he did not read Mr. Sansom's pre-filed testimony because he did not think it was important to do so. See Putman Deposition, Page 17, Lines 8-21; Page 26, Lines 2-5.

In its instant motion, OPC contends that it is inappropriate for PEF to enter into evidence, ask cross-examination on, or even mention Mr. Sansom's pre-filed testimony because that testimony was withdrawn and replaced with Mr. Putman's testimony. While it is understandable that OPC would not want the Commission to hear and consider the fact that two of OPC's retained experts have come to dramatically different conclusions while performing the same analysis, such a desire does not constitute proper legal grounds to strike portions of PEF's testimony or to preclude PEF from challenging Mr. Putman's credibility in cross-examination. To the contrary, such evidence is directly relevant, material, and probative to the claims that Mr. Putman has made in his testimony and to PEF's rebuttal testimony which outlines the mistakes and errors that Mr. Putman has made in his analysis. See Putman Deposition, Page 25, Lines 2-11; Page 27, Lines 2-17.

In summary, PEF has the right to present the Commission with evidence that draws into question the credibility of Mr. Putman's testimony, as well as the right to present evidence that supports the conclusions in PEF's rebuttal testimony, and the evidence that OPC's motion seeks to exclude does both of these things. Therefore, the Commission should be provided the opportunity to hear this evidence and give it whatever weight the Commission deems appropriate, and OPC's Motion in Limine and Motion to Strike should be denied.

WHEREFORE, based on the foregoing, Progress Energy Florida respectfully requests that OPC's Motion in Limine and Motion to Strike be Denied.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of Progress Energy Florida, Inc.'s Response in Opposition to OPC's Motion to Strike and Motion in Limine has been furnished electronically and by U.S. Mail to the following this 27th day of March, 2009.

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Exhibit A

32 pages

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor	)))))	DOCKET NO. 070001-EI FILED: October 1, 2007

DIRECT TESTIMONY

OF

ROBERT L. SANSOM

On Behalf of the Citizens of the State of Florida

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DIRECT TESTIMONY

OF

ROBERT L. SANSOM

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Robert L. Sansom. My business address is 1901 N. Moore Street, Arlington, Virginia.

Q. BY WHOM ARE YOU EMPLOYED?

A. I am a principal in the firm of Energy Ventures Analysis, Inc.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. This information is contained in my resume', attached as Exhibit __ (RLS-1).

Q. FOR WHOM DO YOU APPEAR TODAY?

A. I am testifying on behalf of the Florida Office of Public Counsel ("OPC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. In Docket No. 060658-EI, I provided testimony in support of the petition of OPC to require Progress Energy Florida, Inc. ("PEF") to refund overcharges associated with its failure to burn a blend of Powder River Basin ("PRB") subbituminous and bituminous coals in its Crystal River Units 4 and 5 when PRB became the more economical choice during periods prior to calendar year 2006. The Commission voted to require PEF to make certain refunds relating to coal costs incurred during 2003, 2004, and 2005. The Commission needs to consider whether similar adjustments to actual expenses for calendar year 2006—the year subsequent to the time frame of OPC's petition, for which information was not available in that docket, are warranted under the facts and circumstances surrounding procurement activities related to those costs. The purpose of my testimony is to address that subject.

Q. PLEASE BRIEFLY REVIEW THE COMMISSION'S DECISION IN DOCKET NO. 060658-EI.

A. At the time I prepare this testimony, the written order memorializing the decision in Docket No. 060658-EI has not been issued. However, the Commissioners voted to adopt the primary staff recommendation, contained in a memorandum that was submitted to the Commissioners for their consideration on June 27, 2007. I am attaching the Staff document as Exhibit __(RLS-2).

Q. WHAT ARE THE ESSENTIAL PARAMETERS OF THE PRIMARY STAFF RECOMMENDATION THAT A MAJORITY OF THE COMMISSIONERS

ADOPTED AS THEIR DISPOSITION OF THE ISSUES RAISED IN DOCKET NO. 060658-EI?

A. The essential parameters are these: Crystal River Units 4 and 5 were designed and constructed to have the flexibility to burn a blend containing PRB subbituminous and bituminous coals; PEF was placed on notice, by the participation of producers of Powder River Basin coal in a 2001 solicitation, that PRB subbituminous coal had become competitive with other sources; PEF thereafter should have positioned itself to be able to take advantage of the favorable economics of PRB coal when it evaluated submissions to the solicitation that it conducted in 2003; PEF can burn a blend containing 20% PRB coal without encountering a need to "derate" the historical output levels of Crystal River Units 4 and 5. When comparing PEF's actual costs of coal delivered to Crystal River with the costs of the forgone alternative, the Commission (through acceptance of its staff's primary recommendation) employed the "waterborne proxy" transportation rate advocated by PEF in lieu of actual market rates; incorporated a cost of blending the PRB and bituminous coals off-site; and incorporated also a penalty factor that PEF programmed into the evaluation of bids that it attributed to the impact of coal having the combustion characteristics of subbituminous coal on the boilers.

Q. FOR PURPOSES OF YOUR TESTIMONY, HOW HAVE YOU APPROACHED THE SUBJECT OF THE REASONABLENESS OF THE COSTS THAT PEF INCURRED IN PROCURING FUEL TO BURN IN CRYSTAL RIVER UNITS 4 AND 5 DURING CALENDAR YEAR 2006?

A. The assignment given to me by OPC was to extend and implement the decision of the Commission in Docket No. 060658-EI to calendar year 2006. In other words, OPC asked me to apply the relevant parameters of the Commission's decision in Docket No. 060658-EI to the facts and circumstances attending the procurement of coals to be delivered in calendar year 2006. Simply put, if Powder River Basin coal continued to be more economical than the coal that PEF purchased for delivery in 2006, as was the case in 2003, 2004, and 2005, then the Commission should calculate the adjustment warranted by the facts and require PEF to make a refund of overcharges consistent with its action in Docket No. 060658-EI.

Q. DID PRB COAL CONTINUE TO BE MORE ECONOMICAL THAN BITUMINOUS COAL?

A. Yes. The same imprudence that led the Commission to adjust costs incurred in 2003, 2004, and 2005 continued to cause customers to bear unreasonably high costs of fuel for Crystal River Units 4 and 5 in 2006. In fact, in my testimony I will demonstrate that the "spread" between PRB coal and bituminous coal grew larger with respect to contract coal to be delivered in 2006, causing the impact of PEF's imprudence to be especially severe on ratepayers in 2006. I have quantified the overcharges. Based on bids for PRB coal that PEF received in the solicitation it conducted in 2004 for deliveries to be made in 2006, as compared to PEF's actual cost of supplying 100% bituminous coal to Crystal River Units 4 and 5 in 2006, the Commission should require PEF to refund at least $14,235,491 to customers. This amount measures the

savings that would have been realized had PEF acted on actual bids from PRB coal to fuel Crystal River Units 4 and 5 with a blend containing 20% PRB coal in 2006.

Q. CAN YOU PLACE THE PROPOSED REFUND INTO PERSPECTIVE FOR THE COMMISSIONERS?

A. Yes. According to PEF's Schedule A-4, which is being sponsored by PEF witness Garrett in this docket, PEF incurred approximately $291 million of bituminous coal costs to fuel Crystal River Units 4 and 5 in calendar year 2006. The refund amounts to approximately 5% of that total. Also according to PEF's A schedules, PEF collected some $1.7 billion of fuel costs through the fuel cost recovery clause in 2006. The adjustment related to a 20% PRB blend for Crystal River Units 4 and 5 is less than 1% of that amount.

Q. ARE THERE ANY RESPECTS IN WHICH YOUR TESTIMONY IN THIS DOCKET DIFFERS FROM THE CALCULATIONS UNDERLYING THE COMMISSION'S DECISION IN DOCKET NO. 060658?

A. I have applied the 20% PRB ratio to the full quantity of coal that PEF burned in Crystal River 4 and 5 during 2006, because I believe it is clearly understood that the percentages of PRB and bituminous coals in the chosen "blend" relate to all of the coal burned in the boilers of Crystal River Units 4 and 5. I note that in calculating the amount of overcharges to be refunded the primary staff applied the 20% PRB ratio only to the portion of the total Crystal River 4 and 5 coal requirements that arrived by barge. A substantial portion of the units' total requirements arrives by rail.

To reflect a 20%/80% blend of all of the coal that is fed to the boilers, the 20% factor must be applied to the combined total that arrives by both transportation modes; otherwise, the effective overall percentage is reduced to around 10%, which understates the opportunity to use the units' flexibility to lower customer's costs. I am informed that OPC intends to ask the Commission to correct the calculation when OPC files its motion for reconsideration in Docket No. 060658-EI.

During the proceedings on OPC's petition in Docket No. 060658-EI, one issue that surfaced was whether to use actual market conditions that prevailed in the transportation market or the "waterborne transportation proxy" advocated by PEF to calculate the cost of delivering PRB coal to Crystal River. In that case, the Commission employed the proxy developed by PEF witness Heller for the PRB scenario. However, well before 2006 the Commission-approved "waterborne proxy," from which PEF derived its PRB proxy transportation costs, had been abolished by order of the Commission.. See Order No. PSC-03-1461-FOF-EI, issued in Docket No. 030001-EI on December 22, 2003. Accordingly, the concept of a "waterborne proxy" is not relevant to 2006 circumstances. I therefore have used actual market transportation rates, including those quoted to PEF at the time, to calculate the cost differentials.

At page 57 the primary staff recommendation states, "Therefore, PEF's evaluation of potential PRB purchases are the proper prices for PRB coal purchase evaluations." I note that in calculating the amount to be refunded in Docket 060658-EI, the primary

staff used values taken from PEF witness Heller's exhibits. Mr. Heller did not employ the actual bids received by PEF during solicitations. Instead, he employed spot market prices. The adjustment that Staff calculated therefore was inconsistent with its finding concerning the prices which properly should be used. I have made the actual bid values and evaluation sheet exhibits to my testimony in this docket. Consistent with the text of the primary staff recommendation, with which I agree, I have employed those bids, as evaluated by PEF during the solicitation process, as the proper basis for quantifying the cost of the PRB alternative for 2006 deliveries.

Finally, in addition to the calculation of an adjustment based on the costs that PEF would have incurred had it procured a blend containing 20% PRB coal for delivery to Crystal River Units 4 and 5 during 2006, I will provide a calculation that reflects the assumption of a blend containing 30% PRB coal. I include this because I am informed by OPC that OPC intends to file a motion for reconsideration in which it will ask the Commission to modify its July 31, 2007 vote by changing the basis for an adjustment from 20% PRB to 30% PRB. In the event the Commission agrees with OPC on that point when it takes up the motion, it will have available in record of this docket the calculation that would extend its revised decision to 2006.

Q. IF A 20% PRB BLEND OR A 30% PRB BLEND BY TONNAGE HAD BEEN BURNED IN CRYSTAL RIVER UNITS 4 AND 5 IN 2006 FOLLOWING THE 2004 SOLICITATION, WHAT WOULD HAVE BEEN THE AVERAGE BTU CONTENT PER POUND OF THE BLENDED COALS?

A. The design of Crystal River Units 4 and 5 specified a blend containing 50% Central Appalachian coal containing 12,450 Btus per pound and 50% PRB subbituminous coal containing 8125 Btus per pound, for an average of 10,287 Btus per pound. The Btu content of the PRB coals that producers offered to PEF in the 2004 solicitation for delivery in 2006 contained 9350 Btus per pound and 8800 Btus per pound, or an average of 9075 Btus per pound. If PRB coal containing 9075 Btus per pound were blended with the 12,350 Btu/pound Central Appalachian bituminous coal that PEF actually purchased, the average Btu content would have been 11,695 Btus per pound for a 20% blend and 11,367Btus per pound for a 30% blend.

Q. PLEASE DESCRIBE MORE FULLY THE SOLICITATION TO WHICH YOU REFER.

A. Contractual arrangements, including prices and tonnages, to supply coal to Crystal River Units 4 and 5 during calendar year 2006 were put in place earlier than 2006. To gauge the prudence and reasonableness of the costs that PEF incurred to fuel Crystal River Units 4 and 5 during calendar year 2006, it is necessary to analyze the prior procurement activities that resulted in those costs. In 2004, PEF conducted a formal Request For Proposals in which it invited producers of coal to submit bids to supply coal to be delivered to Crystal River Units 4 and 5 during calendar year 2006. In response to the Request For Proposals, PEF received several bids from producers of bituminous coal and also producers of PRB coal. On an evaluated basis, taking transportation costs and assumed boiler impacts into account, the bids for PRB coal

were easily the most economical alternatives for calendar year 2006 contract deliveries that PEF received during the RFP process—or, for that matter, at any time thereafter. PEF did not purchase coal from any of the PRB producers who participated in the RFP with the lowest bids. PEF could not have done so if it had wanted to, because, as the Commission observed in Docket No. 060658-EI, PEF had failed to acquire and maintain the permitting authority and operating flexibility to enable it to take advantage of the opportunity when it arose. This remained true during the period in which PEF arranged supplies for 2006. As a consequence, PEF paid more for coal delivered to Crystal River Units 4 and 5 during calendar year 2006 than it should have paid, and its customers bore unreasonably high fuel costs.

Q. WAS PEF'S FAILURE SIGNIFICANT? IF SO, WHY?

A. Yes, it was very significant. Compared to 2003, 2004, and 2005, during the 2004 RFP process the market prices for bituminous coal for deliveries in 2006 had moved upward, whereas the market prices for PRB coal had not yet risen. Accordingly, relative to the prior years that were the subject of the adjustment and refund ordered in Docket No. 060658-EI, the incremental cost per ton that PEF incurred as a consequence of being forced to buy 100% bituminous coal, when cheaper PRB coal had been offered to PEF, was larger in 2006. Therefore, the adjustment and refund required to protect ratepayers from overcharges are larger for 2006 than for any of the individual annual periods that were the subject of the refund in Docket No. 060658-EI.

Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO THE REFUND THAT WOULD BE NECESSARY TO EXTEND AND APPLY THE RATIONALE OF THE DECISION IN DOCKET NO. 060658-EI TO THE COSTS THAT PEF INCURRED TO FUEL CRYSTAL RIVER UNITS 4 AND 5 DURING CALENDAR YEAR 2006.

A. Applying the determination that by 2003 PEF should have positioned itself to burn a blend containing a minimum of 20% PRB coal when that source is favorable to customers, and based on the actual bids for PRB coal that PEF received during the solicitation it conducted in 2004 for deliveries to be made in 2006, the required refund is $14,235,491. This includes the value of excess SO2 credits that PEF would not have needed had it purchased the PRB coal. In the event the Commission modifies the amount of PRB in the blend to 30%, the required refund would be proportionately larger. These refund amounts incorporate the effect of SO2 allowances. The amounts also take into account the additional tons that PEF would have purchased if needed to maintain the same total annual Btu burn that it experienced with 100% bituminous coal in 2006. They are exclusive of interest.

Q. PLEASE DESCRIBE THE METHODOLOGY, DATA, AND ASSUMPTIONS YOU EMPLOYED TO REACH THESE CONCLUSIONS.

A. Conceptually, the methodology is to apply the standards of prudence and reasonableness to 2006 costs that PEF incurred to fuel Crystal River Units 4 and 5. In this context, I define prudence as how a reasonable person would respond in implementing a "term" (contract, not spot) coal procurement in 2004 for deliveries in

2006, acting to take advantage of market conditions and utilizing the capability of Crystal River Units 4 and 5 to minimize fuel costs to PEF's ratepayers.

Q. AS APPLIED TO COAL DELIVERED TO CRYSTAL RIVER UNITS 4 AND 5 IN 2006, WHAT ARE THE SALIENT PARAMETERS OF THE STANDARD?

A. The fundamental parameter is the finding that PEF should have been positioned to take advantage of economical PRB coal by the time of its formal April 2004 solicitation. During that process PEF evaluated bids to deliver coal during the period 2005-2007(see RLS-3) from PRB, foreign, and Central Appalachian ("CAPP") coal producers and transporters. PEF's bid evaluation methodology recognized that Crystal River Units 4 and 5 were designed to burn PRB coal, and could take CAPP coal by rail and PRB, imports, or CAPP by barge delivery (water route). A prudent procurer of coal would have recognized that CAPP and imported prices, as delivered, had increased significantly and PRB coal, as delivered, had not. A prudent procurer would have acted to secure the economical fuel represented by these bids to supply PRB coal.

Q. WHAT DID PEF PAY FOR COAL BURNED IN CRYSTAL RIVER UNITS 4 AND 5 IN 2006?

A. According to PEF's 2006 FERC Form 1, in 2006 PEF burned 3, 864,515 tons of coal at Crystal River Units 4 and 5. According to this same FERC Form 1, in 2006 PEF paid an average price of $3.087/MMBtu (delivered) for this coal. This is among the highest prices paid for coal by any U.S. electric utility. It is the highest price paid for

coal by any U.S. utility subject to a similar emission standard, having a multi-modal (rail and water) delivery capability, and having the ability to burn (some) PRB coal. For example, at Scherer Unit 4 southeast of Atlanta, in 2006 FPL burned 100% PRB coal in a unit not designed for PRB coal and paid an average price of $2.18/MMBtu. Southern Company's Miller plant in 2006 paid only $1.64/MMBtu for 100% PRB coal delivered by rail to a site northwest of Birmingham. Mississippi Power and Gulf Power in 2006 paid $2.35/MMBtu for delivered western coal. PEF's average 2006 price of $3.087/MMBtu is not even close to what a prudent coal procurement program could have achieved, had it properly taken advantage of the availability of economical PRB coal. PEF received PRB bids for delivery in 2006 at around $2.00/MMBtu. That is a delivered price. Blended with the more expensive bituminous coal, the PRB coal offered to PEF in the 2004 RFP for delivery in 2006 would have reduced customers' bills significantly.

Q. WAS THE PRB ADVANTAGE TO UTILITIES AND THEIR RATEPAYERS CONSISTENT AND EVIDENT THROUGHOUT THE STATES EAST OF THE MISSISSIPPI?

A. Yes. I offer at Exhibit __ (RLS-4) a map showing the delivered price of PRB coal to eastern utilities in 2005 compared with coals from other U.S. coal producing regions. In all cases PRB coal was the least cost coal. The map is representative of 2006 conditions.

Q. DID THE HIGH COAL COST AT CRYSTAL RIVER UNITS 4 AND 5 THAT RESULTED FROM THE FAILURE TO INCORPORATE ECONOMICAL PRB COAL INTO THE FUEL BURNED IN CRYSTAL RIVER UNITS 4 AND 5 FLOW THROUGH TO THE RATEPAYERS VIA THE FUEL CLAUSE?

A. Yes. Customers bore the higher costs during 2006.

Q. DID THE TERMS OF PEF'S 2004 SOLICITATION LIMIT THE SAVINGS AVAILABLE TO CUSTOMERS IN ANY WAY?

A. Yes. In its RFP, PEF did not solicit proposals to deliver PRB by rail to McDuffie Dock at Mobile, Alabama. PEF omitted this option even though both the BNSF and UP rail lines had bid this superior rail route to PEF earlier (see Exhibit __ (RLS-5), consisting of RLS-17, RLS-34 and RLS-35 entered in Docket No. 060658) and the route was 600 miles shorter than the route contemplated by the terms of the RFP. Use of this route had the potential to save ratepayers another $0.25/MMBtu on PRB coal deliveries vs. the via New Orleans (IMT) route. My calculations of overcharges do not encompass this additional source of savings.

Q. ARE YOU AWARE OF ANY INDICATIONS THAT THE MCDUFFIE DOCK OPTION WAS VIABLE FOR PEF AT THE TIME?

A. Yes. In the form of a contract with Drummond, a South American producer, agreed to in September 2004, PEF purchased coal imported from Columbia that was transshipped at the McDuffie, Alabama dock in 2005 and 2006.

Q. IF YOU IMPOSE A 20% OR 30% LIMITATION ON THE TONS OF PRB COAL THAT COULD BE BURNED IN CRYSTAL RIVER UNITS 4 AND 5, USE THE MAY 2004 BIDS FOR DELIVERIES IN 2006 AS EVALUATED BY PEF IN 2004, BY WHAT AMOUNT DID PEF OVERCHARGE CUSTOMERS FOR FUEL BURNED IN CRYSTAL RIVER UNITS 4 AND 5 DURING 2006?

A. The answer depends on whether the Commission compares the bids received with and without a 20% PRB component, or whether the Commission compares the PRB bids to the cost that PEF actually incurred in 2006. Because PEF altered its plan of fueling Crystal River Units 4 and 5 after concluding the RFP, the values that one calculates for the two approaches are not identical. I will explain why I believe the appropriate measure of overcharges is the comparison with actual 2006 costs. However, I have made both calculations. I will begin with the comparison of 2004 bids assuming 100% bituminous coal with low bids assuming the economical PRB coal was included up to 20% of the total supply for 2006.

Q. FOCUSING FIRST ON THE COMPARISON OF BIDS RECEIVED, HOW MUCH WOULD COSTS HAVE BEEN REDUCED BY A PRB COMPONENT?

A. Assuming a 20% PRB blend, the overcharges were $9,806,800. If a 30% PRB blend is examined, the overcharges would be 50% higher, as the supply curve for PRB coal was flat in the lower price range.

Q. PLEASE EXPLAIN HOW YOU CALCULATED THESE AMOUNTS.

A. To answer this question, I analyzed the following documents, which are contained in Exhibits _and ___ (RLS-3 and RLS-6). First, in Exhibit 3 I have included:

(1) Mr. Al Pitcher's May 20, 2004 memorandum with attachments to Kyle, Crake.

(2) Purchases actually resulting from this solicitation for delivery in 2006, as provided by PEF.

(3) Late filed Pitcher Deposition Exhibit 4: Spreadsheet with formulas for evaluation of coal to be delivered in 2006, as performed by Progress Fuels Corporation in 2004--as provided by PFC to OPC on October 17, 2006.

Exhibit __(RLS-6) contains:

(1) All bids evaluated for Crystal River Units 4 and 5, dated May 20, 2004.

(2) The 2004 RFP document showing the coals solicited, including "8200 Btu/lb min", "subbituminous" coal.

(3) PEF's May 17, 2004 and June 22, 2004 memoranda summarizing procurement decisions for CR 4/5.

Q. WHAT IS YOUR SOURCE OF INFORMATION CONCERNING THE TONS OF COAL BURNED IN CRYSTAL RIVER UNITS 4 AND 5? WHAT DOES THAT SOURCE SHOW?

A. PEF's 2006 FERC Form 1 shows that PEF burned 3,864,515 tons of coal in Crystal River Units 4 and 5 at an average Btu/lb of 12,211.

Q. HOW MANY TONS OF PRB COAL WOULD HAVE BEEN BURNED IN CRYSTAL RIVER UNITS 4 AND 5 IN 2006 ASSUMING 20% AND 30% TONNAGE BLENDS?

A. At 20%, 772,903 tons. At 30%, 1,159,354 tons.

Q. WHAT WAS THE LOWEST BID IN 2004 FOR 2005-2007 CR 4/5 COAL?

A. It was Kennecott's bid of a PRB coal from the Spring Creek Montana mine. It was evaluated at a cash cost of $1.87/MMBtu and an "as utilized" cost of $1.84/MMBtu. The bid (see RLS-3) was for 500,000 tons of 9350 Btu/lb coal including rail delivery and dock costs to and through a St. Louis coal terminal on the east side of the Mississippi River, i.e. a firm bid for rail freight for 2005 to 2007 was included. Rail escalation indexes applied to 65% of the delivered to river dock price of $22.90/ton, implying a 2005 starting rail rate, including rail cars and dock charges, of about $14.90 per ton and an FOB mine price of about $8.00/ton.

Q. IS THE SPRING CREEK PRB COAL SUITABLE FOR CRYSTAL RIVER UNITS 4 AND 5/

A. Yes Spring Creek PRB coal contains relatively high Btus per pound, meaning that fewer tons would need to be purchased to maintain Btu parity relative to other PRB sources. Also, Spring Creek PRB coal contains a relatively high sodium content. Blended with bituminous coal, this would beneficially enhance the ash removal process.

Q. WERE THERE OTHER FIRM FOB MINE BIDS FOR 2006?

A. Yes. Arch, Peabody, Triton, and DTE submitted bids. All of these producers bid coal containing 8,800 Btus per pound. Their 2006 prices ranged from $7.85 to $9.25 per ton, FOB mine. The PRB bids are summarized on Exhibit __ (RLS-7).

Q. WHAT DID PEF'S 2004 BID EVALUATION SHEET SHOW AS THE DELIVERED "CASH COST" AND "UTILIZED COST" FOR THE PRB BIDS FOR 2006?

A. PEFs' 2004 evaluation sheet showed delivered costs to Crystal River Units 4 and 5 ranging from $1.87 to $1.92 per MMBtus on a "cash" basis, and from $1.84 to $2.05 per MMBtus on an "as utilized" basis. The precise values are shown on Exhibit __(RLS-8).

Q. PLEASE DESCRIBE THE ADJUSTMENTS NEEDED TO ARRIVE AT AN "AS UTILIZED" PRICE.

A. As shown at Exhibit RLS-3, (late filed Exhibit 4 to the deposition of PEF witness Al Pitcher), PEF's "as utilized" evaluation penalized PRB coal for high moisture, lower Btu/lb, lower volatility and lower grind, but gave it greater offsetting "mark ups" for lower sulfur and ash.

Q. WHAT WAS THE NET "AS UTILIZED" ADJUSTMENT FOR EACH PRB BID?

A. Kennecott's Spring Creek delivered bid price was adjusted downward by 60 ¢/ton; Arch's Black Thunder bid upward by $2.57/ton; Triton's North Rochelle bid upward by $1.80/ton; and Peabody's North Antelope Rochelle upward by $2.26/ton.

Q. DID THESE PEF PRB COAL ADJUSTMENTS REFLECT THE "AS BURNED" CHARACTERISTICS AT CRYSTAL RIVER UNITS 4 AND 5, AND INCORPORATE THEM IN THE DELIVERED PRICE ANALYSIS?

A. Yes.

Q. WERE THE MAY 2004 BIDS FROM 2006 CAPP COAL AND SOUTH AMERICAN COAL PRODUCERS, WHEN EVALUATED ON A DELIVERED PRICE AND "AS UTILIZED" DELIVERED PRICE BASIS, COMPETITIVE WITH THE PRB BIDS IN TERMS OF COST MEASURED IN $/MMBTU??

A. No. As I showed at page 42 of my direct testimony in Docket No. 060658-EI, and on Exhibit __(RLS-9, which was identified as RLS-7 in Docket No. 060658-EI), in mid-to-late 2003 prices of imported and CAPP coals had risen sharply, but PRB commodity prices and rail rates had not risen. This was the coal market situation at the time of the May 2004 bid evaluation.

Q. PLEASE SUMMARIZE THE LOWEST CAPP AND IMPORTED COAL BIDS RECEIVED BY PEF IN MAY 2004.

A. According to PEF's May 2004 evaluation of 2006 bids via the water route, the two lowest CAPP bids were Central Coal's 300,000 ton 2006 bid evaluated at

$2.69/MMBtu "as utilized" and $2.67/MMBtu on a cash cost delivered basis and Massey's bid of $2.76/MMBtu "as utilized" and a $2.74/MMBtu cash cost. (See Exhibit RLS-3) The lowest imported coal bids on an "as utilized" basis were Drummond Colombia coal at $2.50/ MMBtu via Mobile, AL (PEF put 1 million tons of this coal under contract for 2006), CMC's Colombia coal via Mobile, AL at $2.84/MMBtu, and Guasare Venezuelan coal at $2.89/MMBtu.

Q. HOW DO THESE "AS UTILIZED" EVALUATED BIDS FOR CAPP COAL COMPARE WITH THE PRB BIDS DISCUSSED ABOVE?

A. They were not even close. Winning coal bids are often separated from losing coal bids by a few cents per MMBtu or even less. In this case the PRB "as utilized" bids were more than 50 ¢/MMBtu, or $12.50/ton on a 12,500 Btu/lb coal basis, less expensive than the CAPP and imported coal bids.

Q. BUT THE PRB BIDS WERE NOT CHOOSEN?

A. Correct. PEF was unprepared to burn PRB coal, and in the middle of the May 2004 solicitation aborted its April 2004 test burn of PRB-CAPP blended coal because it discovered it had failed to acquire a federal air permit authorizing it to burn PRB coal in Crystal River Units 4 and 5. A successful test was not conducted until May 2006, long after the procurement activities for deliveries of contract coal in 2006 had been conducted.

Q. WHAT WATER ROUTE AWARDS WERE MADE AS A RESULT OF THE MAY 2004 BIDS?

A. According to Mr. Pitcher's May 17, 2004 and June 22, 2004 Memoranda, awards were made to Central Coal for 300,000 2006 tons at an "as utilized" cost of $2.69/MMBtu (cash cost $2.67/MMBtu) and to Massey at an "as utilized" cost of $2.74/MMBtu (cash cost $2.70/MMBtu).

Q. AT THIS POINT CAN YOU EMPLOY THE 2004 EVALUATED BIDS TO CALCULATE THE 2006 OVERPAYMENTSTHAT WERE BORNE BY PEF'S RATEPAYERS?

A. Yes, although as I explain and provide later, the alternative and more traditional prudence calculation utilizes the actual 2006 delivered cost of the "but for" CAPP and imported coal compared to what would have been paid in 2006 for PRB coal delivered in a 20% or 30% CR 4/5 blend.

Q. PROCEED WITH THE CALCULATION BASED ON WHAT WAS KNOWN IN 2004.

A. The 20% and 30% PRB blend Btu's would be as follows: 20% blend would in 2006 have required 14,028,189 MMBtu of PRB coal and a 30% PRB tonnage blend would have required 21,042,275 MMBtu of PRB coal. Instead a 300,000 ton CAPP award for 2006 went to Central Coal and a 180,000 ton 2006 award went to Massey Coal.

Q. WHAT WERE THE TOTAL BTU'S REPRESENTED BY THESE AWARDS?

A. For Central Coal at 24.6 MMBtu/ton on 300,000 tons, 7,380,000 MMBtu. For Massey at 24.2 MMBtu/ton on 180,000 tons 4,356,000 MMBtu for a total of 11,736,000 MMBtu.

Q. PLEASE EXPLAIN HOW YOU ARRIVED AT THE $9,806,800 FIGURE FOR THE 20% PRB CASE.

A. Had PEF purchased 500,000 tons of $1.87/ MMBtu Spring Creek coal (or 9,350,000 MMBtu), for a blend, the savings would have been $2.69/MMBtu for Central Coal minus $1.84/MMBtu "as utilized" for Spring Creek's delivered PRB coal. The savings would have been $0.85/MMBtu times 7,380,000 MMBtu of displaced Central Coal for a $6,273,000 savings, and $0.90/MMBtu on the 1,601,000 MMBtu of Massey coal displaced by Spring Creek or an additional $1,440,000. In addition, another 2,755,000 MMBtu of Massey coal would have been displaced by Triton, North Rochelle 8800 Btu/lb at a savings of $2.74/MMBtu "as utilized" Massey minus $1.98/MMBtu North Rochelle coal for an added savings of $0.76/MMBtu or $2,093,800.

Q. IS THIS METHOD COMPLETE?

A. This is one method of evaluating ratepayer overpayments due to the failure to burn PRB coal in a 20% blend, constrained by the sum of the Btu's purchased from Central and Massey off of the May 2004 bids for a total of 11,736,000 MMBtu vs. a 20% PRB blend total PRB Btu potential of 14,028,189 MMBtu and a 30% blend potential

of 21,042,275 MMBtu. But this method is not the normal methodology for evaluating the overpayments due to an imprudent procurement.

Q. HOW WOULD THE "NORMAL" METHODOLOGY DIFFER?

A. The differences follow:

- First, I should take the actual cash delivered prices of the as purchased coal purchased instead of PRB coal in 2006 and compare them with the projected as delivered 2006 PRB prices. This is especially important in this case because PEF in 2006 never purchased Massey coal via the water route pursuant to its May 2004 "award" to Massey. Rather PEF in September 2004 replaced the Massey coal and added tonnage with a purchase of more expensive coal from its affiliate sales company, KRT, without a solicitation. This coal would not have been purchased, had PRB coal been purchased for a 20% blend in May 2004.
- Second, I will use Primary Staff's 3¢/MMBtu / PRB Btu penalty for PRB coal use in a 20% to 30% blend.
- Third, I should assume 2004 PRB purchases up to a full 20% and 30% of all 2006 Btu's for the two PRB blend cases and displace the other coals, if any, in addition to Central and Massey coal actually burned in 2006 under 2004 and later contracts that would not have been purchased had PEF fully procured PRB coal for the 20% and 30% blend cases.
- Fourth, I need to reflect in the fuel overpayments, the 2006 overpayments for SO_2 allowances.

Q. WHAT THEN WERE THE CONTRACT BITUMINOUS COALS PURCHASED VIA THE WATER ROUTE IN 2006 FOR CR 4/5 THAT WOULD NOT HAVE BEEN PURCHASED HAD PEF TAKEN ADVANTAGE OF THE 2004 PRB BIDS FOR 2006 IN RESPECTIVELY 20% AND 30% BLENDS AT CR 4/5?

A. Prior to the May 2004 solicitation, according to Mr. Pitcher's June 22, 2004 memorandum, attachment B p. 3 of 3 at Exhibit __ (RLS-3), PEF had 1,650,000 tons under contract for 2006, 650,000 tons of which were subject to reopener agreement. (This statement is not consistent with PEF's statement elsewhere that the Drummond agreement was reached in September 2004. See Exhibit RLS-3.) This left 750,000 tons of CR 4/5 coal uncontracted, even if one limits the calculation to the 2.4 million ton water route deliveries employed in the primary staff recommendation that the Commission adopted in Docket No. 060658-EI. (Later in my testimony, I will demonstrate that the actual water route capability is significantly higher than this number.) In 2004 PFC awarded the following water route contracts for 2006:

300,000 tons to Central Coal

180,000 tons to Massey

480,000 tons to KRT (PFC Affiliate)

Q. BUT MASSEY WAS SHIFTED TO THE RAIL ROUTE IN SEPTEMBER 2004 PRIOR TO THE KRT AWARD?

A. Correct. Therefore, the net new 2004 contract tons, excluding Drummond Colombian coal imports via McDuffie, were Central Coal Company's 300,000 tons and PFC affiliate sales company KRT's 480,000 tons, 180,000 tons of which replaced the diverted Massey coal (see Exhibit ___ (RLS-11). So the total tons are 780,000 tons of contract coal available for PRB coal contracts in 2004.

Q. WOULD TONNAGE HAVE BEEN AVAILABLE FOR PRB DISPLACEMENT BY THE POINT AT WHICH, ACCORDING TO THE DECISION IN DOCKET NO. 060658-EI, PEF SHOULD HAVE BEEN ABLE TO TAKE ADVANTAGE OF CHEAPER PRB COAL?

A. Yes. In the recommendation that the Commission adopted, the primary staff concluded that in 2001 PEF should have been aware that PRB coal was a low cost option for CR 4/5 and should have begun using it in 2003. Therefore the 1,000,000 tons of Drummond coal should have been competed against PRB coal up to 20% to 30% of all CR 4/5 coal blend.

Q. WHAT ABOUT THE AUGUST 2003 VENEZUELAN COAL CONTRACT WITH GUASARE?

A. It also came after the point in time at which PEF should have been aware of the competitive role of PRB coal. Moreover, the new 2005 Guasare coal contract for 2006 and 2007 clearly overlaps the pertinent timeline and should not have been entered into if it was more costly than PRB coal.

Q. DID PEF HAVE SUFFICIENT TRANSPORTATION CAPACITY IN 2006 TO ACCOMMODATE THE INCREASED TONS OF PRB COAL ASSOCIATED WITH MAINTAINING THE QUANTITY OF BTUS PURCHASED?

A. Yes. At 20% and 30% blends in 2006, another 278,926 tons and another 373,677 tons respectively of coal above the 772,903 tons of bituminous coal displaced in the 20% case and the 1,159,354 tons of bituminous coal in the 30% case displaced would have been required in 2006. These additional tons could have been delivered by the water route in 2006. In 2006, PEF moved 2,679,478 tons of coal to Crystal River by the water route. Significantly, 289,245 tons were moved in September alone, demonstrating a 3,470,940 annual rate for water unloading. The top quarter 2006 water deliveries were 785,324 tons, demonstrating an annual capability of 3,141,296 tons when annual capacity is measured using the highest quarter. These capabilities would have been sufficient to handle the additional PRB tons for either the 20% or 30% PRB blend, even without utilizing the expansion capabilities that were available.

Q. WHAT WAS THE AVERAGE COST PER MMBTU DELIVERED TO CRYSTAL RIVER UNITS 4 AND 5 AND TOTAL MMBTU OF THE CONTRACT PURCHASES IN 2006 FROM THESE SUPPLIERS?

A. These purchasers and prices, based on PSC Form 423 prepared by PEF (Exhibit __(RLS-10) were $3.30/MMBtu, $2.90/MMBtu, and $3.05/MMBtu for PEF affiliate KRT, Central Coal, and Guasare, respectively. See Exhibit __(RLS-12).

Q. PEF PAID MORE FOR ITS AFFILIATE KRT'S COAL IN 2006 THAN FOR ANY OTHER COAL?

A. Yes, by a large margin. This contract was awarded without any formal solicitation or competitive bids.

Q. WHAT WOULD THE PRB PRICE DELIVERED TO CRYSTAL RIVER UNITS 4 AND 5 HAVE BEEN IN 2006 HAD IT BEEN DELIVERED IN QUANTITIES SUFFICIENT FOR A 20% OR 30% BLEND?

A. For the 500,000 tpy Spring Creek bid for 2005-2007, as escalated to 2006 FOB barge, plus the river barge, IMT (for transloading and blending), and Ocean barge rates for 2006 as reported in FPSC 423, the delivered price would have been $45.92/ton or $2.46/MMBtu. The components of this price for 2006 deliveries are shown on Exhibit __ (RLS-13).

Q. WHAT ABOUT THE 2006 DELIVERED PRICE AS BID IN 2004 OF THE WYOMING PRB COAL TO CR 4/5?

A. The Arch Black Thunder, Wyoming PRB coal as bid in 2004 for 2006, with escalation, would have been delivered for $40.99 per ton, or $2.33/MMBtu. The components of this price are shown on Exhibit __(RLS-14).:

Q. WHAT ABOUT THE SECOND HIGHEST PRB WYOMING BID?

A. It would have been delivered at $41.32/ton or $2.35/MMBtu.

Q. WHY IS THIS SIGNIFICANT?

A. PEF had Wyoming bids for 1,000,000 tons total from Arch and Peabody respectively at 2006 escalated prices of $2.33 to $2.35/MMBtu. The Montana PRB coal delivered in 2006 at $2.40/MMBtu..

Q. WHAT PRICE DID YOU USE FOR THE PRB CONTRACT COAL THAT SHOULD HAVE BEEN PURCHASED IN 2004 FOR 2006?

A. I used three tiers of prices based on the bids that PEF received, and calculated a weighted, effective price. The first tier is $2.40/MMBtu; the second, $2.33 per MMBtu; the third, $2.35 per MMBtu. The PRB contract coal prices that represent these tiers are summarized on Exhibit __ (RLS-15).

Q. BASED ON ACTUAL 2006 FUEL COSTS, AS OPPOSED TO BIDS FOR NON-PRB COAL RECEIVED AT THE TIME PRB PRODUCERS PARTICIPATED IN PEF'S SOLICITATION, WHAT WERE PEF'S OVERCHARGES TO THE RATEPAYERS IN 2006 FOR THE FAILURE TO BUY 2006 CONTRACT COAL AS BID IN 2004 TO PEF?

A. At the 20% PRB blend level of all CR 4/5 tons, which PRB tons would have been purchased in a prudent 2004 coal procurement to constitute 772,903 tons, the total Btu's would have been: Montana PRB 500,000 tons at 18.7 MMBtu/ton or 9,350,000 x 10^6 Btu's and 272,903 tons of Wyoming PRB coal at 17.6 MMBtu/ton or 4,803,093 x 10^6 Btu's.

Q. DO YOU INCLUDE IN THE FUEL CALCULATIONS THE ADDITIONAL COST OF USING PRB COAL AS CONTAINED IN THE PRIMARY STAFF RECOMMENDATION OF ON JUNE 27, 2007 THAT THE COMMISSION ADOPTED IN ITS DECISION?

A. Yes. According to Attachment A of p. 1 of 2 Column "C" that amount is $0.03/MMBtu.

Q. HOW MUCH WOULD THE RATEPAYERS HAVE SAVED?

A. Had this procurement displaced the highest price water route coal the PEF, KRT affiliate coal, and a small amount of Central Coal, the savings would have been $12,289,807. Details of the calculation are shown in Exhibit No. __ (RLS-16).

Q. WHAT WOULD HAVE BEEN SAVED HAD PEF PRUDENTLY PROCURED PRB COAL THROUGH THE 2004 SOLICITATION FOR 2006 EQUAL TO 30% PRB BLEND AT CR 4/5?

A. The savings would have been the $12,289,807 achievable with the 20% blend plus the following additional savings due to the use of an additional 386,451 PRB tons or an additional 6,801,538 MMBtu's for PRB coal. Assuming additional Central Coal was displaced up to the limit of Central Coal's total tons delivered in 2006 the savings would have been available on 6,550,962 MMBtu at 0.54 ¢/MMBtu, for an additional savings of $3,537,519.

Q. FOR A TOTAL SAVINGS USING A 30% PRB OF WHAT AMOUNT?

A. $15,827,326.

Q. IF THE GUASARE COAL DELIVERED BETWEEN JUNE AND DECEMBER 2006 HAD BEEN DISPLACED BY PRB COAL RATHER THAN THE CENTRAL COAL, WOULD THE SAVINGS HAVE BEEN GREATER?

A. Yes.

Q. WHAT WOULD HAVE BEEN THE TOTAL 20% PRB BLEND SAVINGS HAD THE GUASARE COAL RATHER THAN THE CENTRAL COAL HAVE BEEN DISPLACED?

A. An additional $134,850 in the 20% blend case because the savings would have been $0.69/MMBtu on the Guasare coal rather than $0.54/MMBtu on the Central Coal.

Q. AND IF GUASARE COAL HAD BEEN DISPLACED IN THE 30% BLEND CASE HOW MUCH WOULD THE OVERCHARGES HAVE INCREASED?

A. The additional $134,850 cited above for the 20% blend plus another $1,020,231 for a total of an additional $1,155,081.

Q. THE SAVINGS YOU'VE JUST CITED FOR THE 20% PRB AND 30% PRB BLENDS DO NOT INCLUDE ANY BENEFITS THAT WOULD HAVE BEEN REALIZED FOR PEF'S RATEPAYERS HAD PRB COAL BEEN PROCURED VIA THE MCDUFFIE DOCK IN MOBILE, ALABAMA WHICH WAS THE LEAST COST ROUTE OF ACQUIRING PRB COAL FOR CR 4/5?

A. That is correct. My calculation is therefore conservative.

Q. WHAT ABOUT SO2 ALLOWANCE SAVINGS?

A. At a 20% blend of PRB coal $1,945,684 would have been saved. At a 30% PRB blend, $2,846,276 would have been saved. The calculations are at Exhibit __ (RLS-17).

Q. TAKING INTO ACCOUNT THE VALUE OF EXCESS SO2 ALLOWANCES THAT WOULD HAVE BEEN SAVED HAD PEF PRUDENTLY BURNED A BLEND OF PRB AND BITUMINOUS COALS IN CRYSTAL RIVER UNITS 4 AND 5 DURING 2006, WHAT TOTAL AMOUNT OF OVERCHARGES DO YOU RECOMMEND TO BE REFUNDED TO CUSTOMERS?

A. Assuming the 20% PRB blend that was the basis for the refund ordered in Docket No. 060658-EI, the amount is $ _14,235,491._

Q. WHAT CORRESPONDING VALUES WOULD BE ASSOCIATED WITH A 30% PRB BLEND?

A. The commodity overcharges would be $15,807,306. The associated excess SO2 credits would be $2,846,272, for a total of $18,673,598.

Q. DOES THAT COMPLETE YOUR TESTIMONY?

A. Yes.

Exhibit B

142 pages

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 070703-EI

In Re: Review of coal costs
for Progress Energy Florida's
Crystal River Units 4 and 5
for 2006 and 2007.
_____/

DEPOSITION OF:	DAVID J. PUTMAN
TAKEN ON BEHALF OF:	Progress Energy Florida
DATE:	March 13, 2009
TIME:	Commenced at 8:40 a.m. Concluded at 12:44 p.m.
LOCATION:	2894 Remington Green Lane Tallahassee, Florida
REPORTED BY:	MARY ALLEN NEEL, RPR, FPR Notary Public, State of Florida at Large

ACCURATE STENOTYPE REPORTERS, INC.
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KALEY GILES
PETE LESTER
EARL POUCHER
JEANNETTE SICKEL

I N D E X

PROCEEDINGS

The following deposition was taken on oral examination, pursuant to notice, for purposes of discovery, for use as evidence, and for such other uses and purposes as may be permitted by the applicable and governing rules. Reading and signing of the deposition transcript by the witness was not waived.

* * *

Thereupon,

DAVID J. PUTMAN

the witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BURNETT:

Q. Good morning, Mr. Putman.

A. Good morning.

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

A. David J. Putman, 2236 Royal Crest Drive, Birmingham, Alabama, 35216.

Q. Mr. Putman, I guarantee you I will ask a bad question or an ambiguous question today, so please call me out on it. Let me know if you don't understand anything, and I'll try to ask it better. Otherwise, I'll just assume that you do understand if you don't

tell me.

A. Okay.

Q. I want to turn first to your prefiled testimony in this case. Do you have a copy of that?

A. I do.

Q. Okay. Just starting on page 3 right around line 23 to page 4, line 1, there you're talking about Southern Company's Plant Miller and Plant Scherer. Do you see that?

A. Yes.

Q. Do you know generally what type of coal was used in Plant Miller between 2004 and present?

A. It was Powder River Basin coal, sub-bituminous coal.

Q. Any others that you know of between 2004 and present other than the one you just mentioned?

A. No.

Q. And the same question for Plant Scherer. Do you know generally what kind of coal was burned there between 2004 and present?

A. Primarily Powder River Basin coal. They went through a -- first, two units were converted, and then they later converted the other two units from Central App coal, and I'm not sure exactly when that conversion took place for those two units. So in that time period,

there it could have been some bituminous coal, but in the later part of that, it was all sub-bituminous.

Q. And when you say sub-bituminous, any particular sub-bituminous that you're talking about? Is it Powder River Basin?

A. Primarily. It's my understanding there was a period where they actually burned some Indonesian coal in the 2005 time period, sub-bituminous coal from Indonesia when there were some rail disruptions out of the Powder River Basin.

Q. And you think that was in 2005?

A. Right.

Q. Do you know if they burned any Indonesian coal at Plant Scherer in 2006?

A. Not that I know of.

Q. Do you believe that the full delivered price of coal to Plant Miller between 2004 and 2006 is representative of the same price it would have cost to deliver that same type and quantity of coal to PEF's Crystal River facility in those same years?

A. Could you rephrase that? Are we comparing dollars to dollars or coal to coal?

Q. Dollars to dollars.

A. No. It would be different based on the cost of delivering that coal, when the coal was contracted,

lots of issues that would make a difference between -- in answer to your question, that would make a difference.

Q. Okay. How about coal to coal, same quantity, same type of coal? Generally would the cost to get it to Miller or Scherer be representative of the same cost to get it to Crystal River?

A. No, there would be differences.

Q. Okay. Do you know whether or not Plant Miller has had any capital additions or modifications costing $1 million or more from 2004 to the present?

A. I know they have, yes.

Q. Can you tell me what those are?

A. Not specifically. I know they have an ongoing effort to increase their pollution control areas, in particular, some things about mercury and mercury removal. And I know they've got some other projects under way, some of them quite expensive, but specifically I don't know.

Q. With respect to the one you mentioned about mercury removal, do you know anything more specific about that, like what type of equipment they're using?

A. I read an article where they are working with a chemical that they put on the coal as it goes into the boiler. I don't know how technical you want to get, but

mercury as it's burned in the plant cannot be picked up by a scrubber because it's elemental mercury. But by putting this chemical in there, it becomes an oxide of the mercury, and that can be picked up by a scrubber. So that's where they're trying to go, is to use a scrubber instead of a baghouse, and by treating the coal, they can get most of the mercury out without building a baghouse. That's what they're working on.

Q. And if I understand correctly, a baghouse is another mechanism that can be used to deal with mercury issues; is that correct?

A. That's correct, and other kinds of pollutants.

Q. Do you know generally how much those baghouses cost?

A. They're expensive, but that's all I can say. They're over a million dollars. That was your number.

Q. Right. With respect to this chemical that you talked about that they're using for mercury, do you know if that -- are they the first to try this, or does anyone else in the world use this chemical for mercury mitigation?

A. Again, the article that I read implied that it was experimental, but not necessarily the first at Miller, that there were other people who were also experimenting with it. The chemical comes from Israel.

They've done some work over there.

Q. Do you know what it's called by any chance?

A. I have the article. Do you want to see it?

Q. Sure. I would love to. Mr. Putman, you can just give me a copy of it before we leave if that's all right.

A. Okay.

Q. Mr. Putman, I want to ask you the same questions about Plant Scherer. Do you know whether Plant Scherer has had any plant additions or modifications costing more than a million from 2004 to present?

A. As a general statement, I will say I know less about what Scherer has done than about Miller. So I guess the direct answer to your question is, no, I do not know that. I just am more familiar about what's going on at Miller than I am at Scherer.

Q. Okay. I want to turn to page 16 of your prefiled testimony. Looking at lines 22 through 24, you state that it happens that the analysis for 2006 is a straightforward extension of the adjustment the Commission made for 2005. Do you see that there?

A. Yes.

Q. Mr. Putman, is it your contention that the Florida Public Service Commission based any portion of

the refund it ordered PEF to make for 2003 through 2005 in the prior docket on the pricing of Spring Creek coal?

A. It is my belief that it was not based on specific coal.

Q. Okay. So if I understand that, then it's your belief that it was not specifically based on Spring Creek coal?

A. First of all, I'm not sure why you mention Spring Creek coal. But, no, it is not my contention it was based on any specific coal.

Q. And you raised a good point. When I use the term "Spring Creek coal," my definition of that is the Kennecott bid that you used in 2006 from the Montana Spring Creek Mine. That's what I'm calling Spring Creek coal. So with that definition, same answer?

A. Correct.

Q. Okay. Now, on page 22 of your prefiled testimony, lines 1 through 6, you state that it is natural to expect that bids to a competitive RFP for coal will not vary in price to a great extent; is that correct?

A. That's correct.

Q. And you go on in that same area on page 22 to say that despite this natural expectation, bids that PEF received in 2006 for sub-bituminous coal were about

40 percent cheaper than the price of the bituminous coal that PEF actually bought; correct?

A. Correct.

Q. And I believe you even characterized this 40 percent difference as being dramatic in lines 5 and 6; correct?

A. 40 percent is dramatic.

Q. What is your opinion as to why these prices were approximately 40 percent different?

A. Because you were buying from two different basins that had a whole different set of economic dynamics going on within the basins. The pricing within the basins was not dramatically different, but between basins. And that is not uncommon, because every basin has got their own dynamics.

Q. Anything else?

A. No.

Q. Okay. In your experience in this industry, have you ever seen price differentials like this in RFP responses for coal sales before?

A. Yes.

Q. Can you tell me each one of those?

A. The experience we had in Southern Company as we began to look at Powder River Basin coal versus the coal we were buying, for example, from the state of

Alabama for Plant Miller, primarily from Jim Walter Resources and Drummond Coal, there were huge differences, more dramatic than 40 percent.

Q. And what year was that in?

A. It would have been in the '98, '99 time period.

Q. Any other instances of seeing differentials like this other than the ones you just mentioned?

A. Again, between basins, it was not an uncommon thing to find dramatic differences. Within basins, you would expect those numbers would be close. But we bought coal over the time I worked there from South Africa that was cheaper than buying coal in the United States, dramatically different. We bought coal from South America that there were differences between what was available in the United States and in South America. Powder River Basin to Central Appalachian, yes, there were those kind of dramatic differences.

Q. Okay. With respect to the South American coal you just mentioned, what years were those?

A. Again, I retired from Southern Company in late 2000, so my direct experience was in the time before that. I worked in the fuel department from 1983 to 2000, and it would have been during those kind of time periods. If you want a more specific answer, then I

guess we need to narrow in on a time frame.

Q. No, I think that's fine. And you said that between -- you had mentioned Powder River Basin coal at the Southern Company versus CAPP coal, and then you had mentioned foreign coal versus -- was that versus PRB or versus CAPP?

A. That would have been CAPP coal.

Q. Okay. And both of those instances were prior to 2004 then? We can just say it that way.

A. Correct.

Q. With respect to the foreign coal that you just mentioned versus CAPP, do you know why it was so dramatically different in price?

A. If you go to South America, we were buying coal from Drummond, and they opened up a new mine in Colombia, and you get into all the issues of lower workforce costs. Their mine was an open surface mine. The coal they were mining in Alabama, which is where that competition was taking place, was underground mining, and underground mining is normally more expensive than surface mining. So you had the labor force issues. You had governmental regulation issues. You had those kind of things as well as the surface versus underground that drove the price differences.

Q. Okay. You were involved in the last docket,

060658; correct?

A. That's correct.

Q. And sometimes, if it's okay, I'll refer to that as the prior docket or the last docket.

A. I would prefer that myself.

Q. All right. Sounds good. In your work in the last docket, in reviewing anything that you may have reviewed in that docket, did you see any 40 percent type price swings in what PEF was ever offered on RFPs in that docket?

A. I do not recall making that calculation.

Q. So none that you can recall?

A. That's correct.

Q. Okay. Now, on page 25 of your testimony at lines 14 through 20, you discuss your opinion on the coal quality of Peabody coal that PEF used for a test burn in 2006; is that correct?

A. That's correct.

Q. Do you base your opinions there on any documents that you reviewed?

A. The contract, the agreement between Progress Energy and Peabody, and also the quality of the coal actually received.

Q. Do you base those opinions on anything else other than what you just mentioned?

A. I compared that information to my knowledge and experience with Powder River Basin coal and the more standard expectations that I had about Powder River Basin coal.

Q. And that knowledge and experience is based on just what you've seen in the industry in your work?

A. That's correct.

Q. Did you perform any other analysis of that Peabody coal with respect to its quality or characteristics other than what you mentioned?

A. What I mentioned was a comparison of the specifications, and that's what I compared.

Q. Okay. Well, on that same page, you state that the Peabody coal was not of the same quality of what would be expected for PRB sub-bituminous coal; correct?

A. Correct.

Q. What quality would be expected for PRB sub-bituminous coal?

A. I guess I'm not sure I can answer that the way you phrased it. I would ask you to rephrase it, because that's a little too broad.

Q. Okay. Well, on page 25, line 15, 14 and 15, you say, "Even the quality of the Peabody coal, especially the sulfur level, was not what would be expected for PRB sub-bituminous coal." And I guess what

I'm saying is, that seems to say that the quality, and specifically sulfur, was not what would be expected. And to say something is expected, that leads me to believe that you have a baseline that you're comparing that against, so I'm trying to figure out what that baseline is.

A. For sulfur specifically, which is what that was, I would have expected a lower number. I'm not sure without looking back at my notes exactly what that number would be. But the Peabody coal had a higher sulfur level than an historic look at sulfur coming out of the Powder River Basin. And for a specific number, I would have to look at my notes.

Q. And the notes that you said you would need to look at, are those the same notes that you gave to OPC to produce in response to my discovery request?

A. It would be the contract, the Peabody contract and the coal actually received. The numbers really came from you. They were the documents that you all provided to us. That's what I was looking at.

Q. So no notes or anything that you actually made?

A. No.

Q. Okay. Well, you spoke to sulfur there. Any other qualities of the Peabody coal that you're talking

about there at lines 14 and 15 on page 25?

A. Sulfur was the primary thing that caught my attention.

Q. Okay. I understand it was the primary thing, but my question is, are there any other quality characteristics that you're talking about?

A. No.

Q. Okay. Are you familiar with the testimony of Robert L. Samson filed in PSC Docket 070001-EI?

A. I'm aware that it was filed. I did not study it or review it in depth. Well, really, I just sort of flipped through it.

Q. You've seen it and flipped through it, then?

A. I have not read it.

Q. Okay. So when you say flipped through it, you physically just picked up the document and like fanned it, or --

A. Well, I looked at headline topics without reading the paragraphs. I purposely came into that after I was employed by the Office of Public Counsel, intending to come in with an open look.

Q. Well, I have a copy of that testimony here, and I'll just give it to you and let you read some of it. Actually, since I only have one, I'll go ahead and read this, and then I'll hand it to you to verify I've

read it properly, and you can see where I'm reading from.

On page 4 of that testimony, Mr. Samson says, "The assignment given to me by OPC was to extend and implement the decision of the Commission in Docket No. 060658-EI to calendar year 2006. In other words, OPC asked me to apply the relevant parameters of the Commission's decision in Docket 060658-EI to the facts and circumstances attending the procurement of coals to be delivered in calendar year 2006." And at this point I'll hand this to you so you can review it.

Joe, I'm sorry. I only have one copy.

A. You did a good job of reading.

Q. Okay. Based on that, would you agree with me that the assignment that OPC gave Mr. Samson in that testimony is virtually identical to the assignment OPC gave you in this case with regard to 2006 coal purchases?

A. With regard to 2006? I was also asked to look at 2007.

Q. Right. But right now, I'm just talking about 2006. You would agree with me that your assignment and Mr. Samson's assignment were virtually identical?

A. I guess I would say that without buying into his assignment or anything, I would say that my

assignment was to do that. I would rather not compare it to his assignment.

Q. Okay. Fair enough. May I borrow that back? I'm probably going to pass that back and forth. I apologize for my inefficiency with documents. Bear with me one second.

If you would take a look down on page 5 at lines 14 through 23, my contention is that Mr. Samson was not limiting his 2006 analysis to coal that could be delivered to Crystal River just by barge. My contention is he was including both barge and rail deliveries in his analysis. So if I could get you to read page 5, lines 14 through 23, and let me know based on that if you would agree with me.

A. Even before I read it, I'll say that I'm not here to interpret his statement.

Q. Understood. And if you don't think it's straightforward from those lines, you can tell me.

MR. McGLOTGHLIN: What's the reference again?

MR. BURNETT: It's on page 5, and that would be lines 14 to 23.

A. I guess I'm really not up to agreeing with anything he's saying. I'm here to talk about my testimony. I mean, I would have to go through the whole document and understand what he was doing and why he was

doing it and all that before I would be comfortable with agreeing with anything about it.

Q. Okay.

A. I mean, I'm here to talk about what I said.

Q. And I understand that. I guess I was just referring to his statement there. On page 5, line 20, he says, "I note in calculating the amount of overcharges to be refunded, the primary staff applied a 20 percent PRB ratio only to the portion of the total Crystal River 4 and 5 coal requirements that arrived by barge. A substantial portion of the units' total requirements arrived by rail," and he goes on.

So I guess what you're telling me is you can't make a determination one way or another if he was doing barge or rail or both?

A. I mean, I have an opinion of reading that just like anything else, but I'm really not -- I don't feel that that's what I'm here to do.

Q. Okay. Fair enough.

I do have a few more questions out of this. I would like to now turn to page 16 of Mr. Samson's testimony. I'll highlight it to make it easier. I'm on line 7.

MR. McGLOTGHLIN: Could we take a moment and clarify something for the record? You're referring

to Mr. Samson's testimony. That was prefiled testimony that was withdrawn. Mr. Samson is no longer with us, and we are not sponsoring that testimony in any way.

MR. BURNETT: Correct. And this is his testimony -- Joe, you're right -- to be clear, again, in Docket 070001-EI.

MR. McGLOTGHLIN: Which was withdrawn.

MR. BURNETT: Right.

BY MR. BURNETT:

Q. So again, on page 16 of what we just referred to as Mr. Samson's testimony, he is talking about a Kennecott bid of PRB coal from the Spring Creek, Montana, mine. And I would like you to take a look at lines 7 through 14, and if you can, tell me if this is the same Kennecott bid for Spring Creek, Montana, coal that you were dealing with in your testimony in this docket?

A. I guess my answer to that is I'm not sure. I used as my source the evaluation sheets prepared by Progress Energy in determining which were the low cost coals for comparison. On those sheets, the Spring Creek term never shows up. And I would have to look and see if the price on that piece of information matches the price on that evaluation sheet to know if we're talking

about the same bid or not. Again, Spring Creek never shows up on that evaluation sheet.

Q. Okay. Well, I have a few more. And again, I appreciate it if you can't answer these based on what you're reading, but I'll give it a try anyhow.

Mr. Samson says on page 10 of his testimony in Docket 070001 that based on solicitations that PEF received in 2004 for deliveries made in 2006, he says the required refund is $14,235,491, and he says this includes the value of excess SO_2 credits that PEF would not have needed to purchase had it used PRB coal. And if I can show you that just so you know what I'm reading from, did I read that 14,235,491 figure correctly?

A. You did read that number correctly.

Q. Okay. How much of a refund do you contend is due in 2006?

A. Well, again, I do not support that. I do not understand the methodology. I did not make any effort to understand the methodology used. I came into it on my assignment, approached it afresh, and reached my conclusions which I have discussed in my testimony. Bob is a great guy, but I'm not buying into, without a whole more knowledge, what he put down on that piece of paper.

Q. Okay. Well, let me just ask that question, though. What do you say is the refund due and owing

with excess SO_2 credits in this case, but without interest?

A. For both years, it's some number, 61 million plus.

Q. 2006 only is what I was asking.

A. May I look at my chart?

The coal number, for just the coal, was 25,149,462. And the excess SO_2 cost was $2,915,308.11, for a total 2006 refund request of $28,064,770.11.

Q. Okay. And you may have answered this already, but do you have any idea why Mr. Samson's figure is considerably lower than yours?

A. Again, I would not want to speculate.

Q. Okay. On page 16 of Mr. Samson's testimony, he's talking about what he's calling Spring Creek PRB coal, and he says, "Also, Spring Creek PRB coal contains a relatively high sodium content." That's page 16, line 20. I'll show you that just to make sure I read that correctly.

A. It does say, "Also, Spring Creek PRB coal contains a relatively high sodium content."

Q. Do you agree with that statement?

A. Again, Spring Creek coal is not a term that I was using in my evaluation. It was not a description of the bids that was on the evaluation sheets, so I really

cannot answer that.

Q. Okay. The 2006 Kennecott bids that you used as the basis for your analysis in this case, the coal from those bids, do you believe that they are relatively high in sodium?

A. Again, sodium does not appear on the evaluation sheet.

Q. Okay. I understand it doesn't appear on the evaluation sheet, but do you have an opinion one way or another as to whether their sodium content is high or low?

A. It was not in my thought process as I went through this evaluation process.

Q. Is that a no?

A. I relied on the evaluation process that Progress Energy used to come up with their evaluated cost of fuel, and I assumed, based on my understanding of the evaluation process, that if it had high sodium, it impacted that evaluated cost, and if it had low sodium, it impacted that evaluated cost.

Q. Okay. I think I can ask one more question and probably move on on this. With respect to the 2006 coal from the Kennecott bids that you used as the basis for your analysis in this case, do you know the sodium content of those coals?

A. I do not.

Q. Okay. You may not again know what Mr. Samson is talking about here, but I'm going to see anyhow. On page 22, line 15, he says, "Second, I will use primary staff's three cents MMBtu/PRB Btu penalty for PRB coal used in a 20 percent to 30 percent blend." And I'll hand that to you to make sure I've read it accurately.

A. I surely do not know what that sentence means. You read it accurately, but I do not know what it means.

Q. So you don't know what he's talking about at all about this three cents MMBtu/PRB Btu penalty?

A. No, I do not.

Q. Did you apply any sort of MMBtu penalty in your analysis?

A. I adopted the penalties and premiums that resulted from Progress Energy's evaluation of the bids through their -- either the VISTA or a VISTA-like process. So any penalties were ones developed by Progress Energy.

Q. Why did you not find it helpful to your analysis to read Mr. Samson's testimony before you conducted your analysis?

A. I guess I view myself as independent, and I wanted to approach it afresh and anew from my perspective. I did not want to be prejudiced by his

evaluation process.

Q. I understand you didn't want to be prejudiced, but was it not important to you to know what OPC's prior expert had said in prefiled testimony?

A. The honest answer to that is no, I did not.

Q. Okay. Can you tell me what your delivered price per ton is for the 2006 coal that you used in your analysis?

A. I'm going to be looking at a document that you have marked confidential. Does it make you nervous that I'm opening that up in this room?

Q. It does not. I believe that everyone here can see or hear that. It's just that if we were going to have the transcript printed out, we would need to note that that is a confidential portion. But thank you very much, Mr. Putman, for raising that issue.

A. All right. Would you ask your question again?

Q. Yes, sir. The 2006 coal that you used for your analysis that you contend PEF should have bought to mix in a 20 percent blend, I would like to know what your delivered price per ton is.

A. Let me clarify first that in my analysis, I actually used two Kennecott bids in order to make up the tons necessary for my evaluation. And when you ask for delivered price, are you asking for an evaluated

delivered price or a cash delivered price?

Q. I'm asking for an evaluated first.

A. All right. The evaluated price that I used for the first Kennecott is $34.37, $1.84 per million Btu.

Q. And how about the second Kennecott?

A. It was a delivered price of 38 -- all right. Y'all don't make fun of me. It's $39.22, and $1.97 per million.

Q. Okay. Now, again, I'm almost done with Mr. Samson's testimony, but on page 27 of his testimony, he talks about some 2006 -- again, what he's calling Spring Creek coal, and he has a delivered evaluated price of $45.92 per ton or 2.46 per MMBtu. I just want to confirm that you have no idea of how he came up with that or if you guys are talking about the same thing.

A. I do not know how he got that.

Q. Okay. I'm going to try a hypothetical here, so if I lose you anywhere along these lines, please tell me, because I'm not a coal expert, but I'll give it a shot.

I want to say in this hypothetical that I'm a company who wants to burn a blend of coal in my units at a 80-20 percent blend ratio. Am I good so far?

A. Very good.

Q. Now, I want you to assume that the coal that I'm going to use as my 80 percent coal has no sulfur dioxide at all. I don't know if that's realistic in the real world, but just assume for the sake of my hypo that that is correct. Are we clear?

A. Okay.

Q. And I'm going to mix that -- what I'm going to mix with that 80 percent coal that has no sulfur dioxide at all, I'm considering two potential blend coals. Are we still good?

A. Yes.

Q. Okay. One of my potential blend coals has no sulfur dioxide at all as well, and the other one has 1.2 pounds per MMBtu of sulfur dioxide. So those are my two potential blends. Are we still good?

A. Okay.

Q. Now, just taking those two blends, the two potential blend coals and looking at them by themselves, one has zero sulfur dioxide and one has 1.2 pounds per MMBtu. You would agree with me that just looking at those, I can tell which one has the higher sulfur dioxide; correct?

A. Looking at the coal?

Q. Yes.

A. Physically looking at the coal, I could not.

Q. Well, looking at the specifications that I derive from the coal. You're keeping me honest. I appreciate it.

A. Yes.

Q. Okay. So you would agree with me that looking at the specifications of the zero sulfur dioxide versus the 1.2, I can tell which one of those blends has -- I mean which one of those coals has the most --

A. Yes.

Q. Okay. Now, if I take my 80 percent coal that has zero sulfur dioxide and I mix it with the 20 percent blend coal that has zero sulfur dioxide, you would agree with me that that resulting blend has has zero sulfur dioxide?

A. That would be my expectation.

Q. Okay. And on the other hand, if I take the 80 percent with zero sulfur dioxide and mix it with the 20 percent that has the 1.2, you would agree with me that that blend would at least have some sulfur dioxide; right?

A. I would agree with that.

Q. Okay. So in my scenario, whether I look at the two blend coals before they're blended or after they're blended, I can still see which one of the two has the most sulfur dioxide; correct?

A. Correct.

Q. Okay. With respect to the coal that you assert that PEF should have burned in 2006 -- and I'm talking about the two Kennecott bids we've talked about -- what other utilities in the United States burn that coal?

A. I expect there are a lot of them. I do not know the names of them, but Kennecott is a very large producer of coal out of the Powder River Basin, and it's going somewhere. I don't know the names of the companies. I know that at a time, Plant Miller and Plant Scherer both bought coal from Kennecott.

Q. Do you know if it was the same coal, though, that you --

A. I do not.

Q. So with respect to the exact coal that you are 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?

A. I cannot.

Q. Now, with respect to the Indonesian coal that you assert that PEF should have burned in 2007 in your analysis, what utilities in the United States have ever burned that coal?

A. I know that TECO has burned coal out of Indonesia, out of PT Adaro. I know that Plant Scherer has burned coal from PT Adaro. Those are ones that I have seen documentation saying they've burned that coal.

Q. When you say coal from PT Adaro, I just want to be clear. Is that the exact same kind of coal that you're using in your analysis?

A. I cannot specifically answer that. PT Adaro is a company that has several mines in a narrow location. So the exact same coal, I cannot vouch for that, but it came from the same company and the same region.

Q. Same company, same region, but you don't know if it's the same type of coal that you're using in your analysis?

A. That is correct.

MR. McGLOTGHLIN: For clarification, when you say the same type of coal, what distinction are you making there? Bituminous versus sub-bituminous, or something more refined than that?

MR. BURNETT: Good question, Joe. I mean the exact same coal, same specifications as he's using in his analysis.

BY MR. BURNETT:

Q. And with that clarification, same answer,

Mr. Putman?

A. That's correct.

Q. Okay. Now, I'll try to make -- I'm going to try to lump my questions here for '6 and '7 together. You tell me from the start if it's unclear to do so, and I can go through all of 2006 and then all of 2007 if we need to, but I want to try to save some time.

For these next questions, I'm interested in whether you've performed an analysis on how these coals may impact operational performance for CR4 and 5. So is it going to be okay for me to ask those together, like Indonesian and -- I mean 2006 and '7, or should I break them up and run through all these? Because I don't know if you performed independent analyses, you know, for this coal, the '6 coal in one and the '7 in another. You may have done them together, or you may not have done them at all.

A. You can ask the questions. I will tell you that I adopted the evaluations performed by Progress Energy to come up with an evaluated cost for the coals that are on these bids. I did not personally evaluate them based on their specifications. I adopted the ones performed by Progress Energy.

Q. Okay. I'll lump these together, then '6 and '7, and then I should be able to go through --

A. By '6 and '7, you mean 2006 and 2007?

Q. Yes, sir, I do. I'm going to lump these together for 2006 and 2007. I'll lay sort of a little foundation for this and then try to go through these quickly.

Okay. All these questions are going to relate to the 2006 coal that you've selected to use in your analysis, and we refer to these as the Kennecott bids.

A. Correct.

Q. And the 2007 coals that you have used in your analysis as well that hail from Indonesia.

A. Correct.

Q. So when I say the 2006 and 2007 coals, that's what I'm talking about. Is that fair?

A. I understand.

Q. Okay. 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?

A. I have not.

Q. How about on how their moisture levels may impact the operational performance?

A. I have not personally done an evaluation. I adopted those performed by Progress Energy.

Q. And you may give me the same answer, but I

just need to tick these off just to make sure my record is clear. Same question for self-heating temperatures?

A. I used Progress Energy's evaluations.

Q. Okay. You can tell me, "Same answer," if you want. Potential effect on boiler efficiency?

A. Same answer.

Q. Potential heat rates in terms of Btus per KW?

A. Same answer.

Q. Ash levels?

A. Same answer.

Q. Base-to-acid ratios?

A. Same answer.

Q. Sodium levels?

A. Same answer.

Q. Calcium --

MR. McGLOTGHLIN: I'm trying to take these down, John, so slow down a little bit for me.

MR. BURNETT: I'm sorry. The last one was sodium levels.

BY MR. BURNETT:

Q. Calcium levels?

A. Same answer.

Q. Sulfur levels?

A. Same answer.

Q. Electrostatic precipitator impact?

A. Same answer.

Q. Now, with respect to the Indonesian coal, the 2007 coal that we've talked about, can you point me to anywhere in the record in Docket 060658 where the Commission heard evidence on that coal?

A. I cannot.

Q. Is that because you didn't look for any or because there is none?

A. Because this coal became available to Progress Energy after the time period looked at by the Commission in that prior docket.

Q. Okay. With respect to the 2006 coal that you used in your analysis, and we've defined that, can you point me to anywhere in the record in Docket 060658 where the Commission heard evidence on that coal?

A. No, I don't think I can. That doesn't mean it's not there, but I cannot point you to that.

Q. And I would assume that's because you haven't looked for it.

A. I guess I wouldn't exactly say that. I looked at it in trying to determine what coal was used by the Commission in their evaluation, and I do not recall seeing a mention of that particular coal.

Q. Okay. Bear with me one second. I need to reference another document.

Okay. I'm going to show you a copy of PSC Order 07-0816-FOF-EI. And I would represent to you that this is the order resulting in Docket 060658, which we've called the prior docket. I'm going to turn to page 38, and there is a -- actually, I think I may have another copy of this. Hand that to Joe first so he can take a look at it.

A. Page 38?

Q. Yes, sir.

A. Okay. I'm there.

Q. Okay. At the top of page 38, that first bullet, do you see there where the Commission order says, in parentheses, "thereby taking into account waterborne coal delivery constraints at Crystal River and rail transportation constraints in 2005"?

A. I see that.

Q. And down in that first full paragraph, starting with, "We accepted the testimony of witness Heller that Crystal River transportation constraints would have limited the waterborne delivery," and it goes on there?

A. I'm sorry. I was looking back. What am I looking at again?

Q. It's that first full paragraph below the bullets on page 38 of that order, and it starts, "We

accepted the testimony of witness Heller that Crystal River transportation constraints would have limited the waterborne delivery of coal," and it goes on.

A. Okay.

Q. Based on your understanding, what is the Commission talking about here with these transportation constraints?

A. It would be my understanding, based on hearing what I heard in the testimony, that it was the contention that Crystal River could only unload a certain amount of coal at the plant on an annual basis, and it was the contention that that number was 2.4 million tons per year, was the stated testimony.

Q. Okay. In reference to what we just read there and what you just described, have you applied any sort of similar transportation constraint in your testimony in this case?

A. No. I used their actual numbers, which exceeded 2.4 million tons, that they actually unloaded in 2006 and 2007, which was over 2.6 million tons each year.

Q. Well, I want to ask you -- the Commission talks about rail transportation constraints there, and you were talking about water unloading if I heard you correctly. Do you understand what the Commission is

saying here on page 38 to apply to both rail and water constraints?

A. The paragraph you pointed me to, as I read it, is only referring to waterborne.

Q. Okay. But you do see the first bullet up there where the Commission talks about rail transportation constraints for 2005?

A. I know that they factored that in. There was testimony about disruptions in Powder River Basin coal in 2005, but you haven't shown me that further discussion.

Q. Well, with respect to that further discussion you're talking about, I think that's over on page 39. If you look there, it's down on the page -- it's the second full paragraph, the paragraph that begins with "Witness Heller." And the Commission is talking about what they've done here, and the sentence right in the middle that starts, "Based on record evidence." I see a passage that says, "We reduced the volume of PRB coal in 2005 by 7.5 percent of the shipping volume to account for rail transportation disruptions which occurred in that year." Do you see that there?

A. I do.

Q. Did you account for any similar disruptions anywhere in your testimony in this case?

A. I did not.

Q. Why not?

A. Because I used actual numbers of tons moved, so if there were any disruptions, they would have affected those numbers. If it was a great year or a bad year, the numbers are what the numbers are. They were the amount of tons unloaded at Crystal River in those two years, 2006 and 2007.

Q. What kind of tons were unloaded?

A. A ton is a ton.

Q. Tons of what?

A. Coal.

Q. What kind of coal?

A. Coal.

Q. What kind of coal? Sub-bituminous, bituminous, Central Appalachian?

A. I don't believe they were buying any sub-bituminous coal, so it would have been bituminous coal. But a ton is a ton.

Q. Well, a ton is a ton, I understand that. But if I have coal coming in from Virginia and I have coal coming in from Wyoming, those are coming from different places; right?

A. Okay. I'm talking -- the numbers I used were waterborne coal delivered by barge into the plant. I'm

not talking about rail deliveries.

Q. Okay. Well, let me be clear. PRB coal in a mine somewhere out West, maybe Wyoming?

A. Correct, a source.

Q. And CAPP coal could be a source. Potentially Central Appalachian coal could be in Virginia?

A. Could be. Could be other places too.

Q. Now, unless I'm missing a river system that I don't know about, you need to have some rail to get that coal from the mines to some river. Am I right there, in either one of those scenarios?

A. That's correct.

Q. Okay. So I want to make sure I understand what you're saying. I'm asking you, is it possible that a rail may be constrained in Wyoming that would prevent coal from coming from the mine to the barge, but it may not be constrained in Virginia?

A. You're asking me a hypothetical, so I --

Q. Yes.

A. Constraints occur where they occur, yes. I'm not sure what the question is, though.

Q. I'm trying to get to it.

A. Okay.

Q. So in your analysis, I believe for your 2006 coal, you're assuming that coal would have come from

Montana, correct, from the Spring Creek Mine?

A. Go ahead.

Q. Is that correct?

A. In my analysis, I used the number of tons that were actually delivered to the plant. And for the source of the coal, I used coal that was analyzed by Progress Energy. As part of that, they included a cost for transportation. That number is one they created and they applied to it. So I did not second-guess where that number came from, whether or not it was a rail direct all the way to a transloader or whether it went to the river and then from the river to a transloader to the plant. It was a total delivered cost, cost of delivery to the plant from the mine.

So in that process of the pricing of the coal, there was no disruption in that, no opportunity for disruption in that. It was a price -- you could call it a forecasted price. And then what I used for the number of tons involved in the analysis, I used actual delivered tons.

Q. Okay. But back to your 2006 coal from the Kennecott bids that you used in your analysis that I understand comes from the Spring Creek Mine in Montana -- am I correct there that that coal comes from the Spring Creek Mine in Montana?

A. It comes from Kennecott.

Q. Do you know what mine it comes from?

A. I do not.

Q. Do you know what state it comes from?

A. Either Montana or Wyoming.

Q. Okay. Montana or Wyoming. So between one of those two states, my question to you is, did you do any analysis to see in 2006 if there would have been any rail constraints moving that coal from either Montana or Wyoming to some sort of river to get it on a barge?

A. I did not.

Q. Okay. Why not?

A. Because I was basing my analysis on coal that was actually delivered. And so if they had bought coal out of Powder River Basin, then the assumption is that that coal would have been delivered.

Q. You would agree with me, though, that in real life, had there been transportation constraints that kept that coal in 2006 from getting from one of those mines in either Montana or Wyoming, that if it can't get to the barge, it can't get loaded on the barge? Is that correct? Is that --

A. That's a hypothetical, and it would apply to any transportation, any mine problems or any transportation problems. There are lots of risks of

coal bought not being delivered because of constraints and disruptions and problems. But that's a hypothetical, and I did not consider those hypotheticals in this analysis.

Q. Okay. I want to ask you the same type of questions for your 2007 Indonesian coal. My best guess -- tell me if I'm wrong -- is that that coal would come from somewhere in Indonesia.

A. That's correct.

Q. Did you perform any analysis to see if that coal could actually get from Indonesia to Crystal River without having any sort of transportation constraints?

A. I did not do that analysis.

Q. Well, I'm going to ask you why not again. I don't know if it's the same reason you gave before.

A. Why not? Again, companies sell coal. That's their business. They arrange for transportation. That's their business. Indonesian coal, particularly these two companies are very large Indonesian suppliers. Indonesia is the first or second largest exporting country. They export lots of coal, so the assumption is that they know how to move coal. They know how to get it to their customers. Yes, there is some risk of disruption. There's always risks of disruption, but they do it very well and do a lot of it. So that was

the assumption.

Q. Okay. Bear with me one more second.

I would like to refer you back to page 38 of Order 07-0816. The discussion that yields the sentence I'm about to come to starts on the bottom. It talks about, "The record indicated that the capital and ongoing O&M costs," and it goes on over to page 39. My question is, on page 39, it says, "Our adjustment to the evaluated price of PRB coal," paren, "in dollars per MMBtu, to account for the capital recovery requirement is the difference in the PRB evaluated price Attachment A, Table A, Column H, and the PRB adjusted evaluated price, Attachment A, Table A, Column C." Do you see that there?

A. I do.

Q. In your understanding, what is the Commission talking about there?

A. My understanding is that they looked at the cost of capital investments required to burn Powder River Basin coal or sub-bituminous coal, and they came up with a number that said this is how much it will cost. They then used that number in their evaluation to determine whether or not it made sense to invest that money and to then begin burning Powder River Basin coal.

It is also my understanding of this order,

very clearly, that having once satisfied that requirement that it made economic sense to invest that money, then they said that the cost of that capital will not impact the penalty, the recovery of the refund, and that that cost should have been invested when it began to become apparent that Powder River Basin coal was a good option back in the 2003 time period, should have been invested and should have been filed for recovery in base rates, and that once the economics showed that it made sense to invest that money, the money should have been invested, and it won't be a barrier anymore in the future, and it was not a barrier and did not affect the recovery in this case.

Q. Okay. You told me about a couple of things there. You told me about -- you explained what your understanding of that passage is, and then I think you told me what your interpretation of some things in the order were. I want to talk about just that first part where you told me about what your interpretation was of what I just read. Did you apply that same methodology, the first thing you described to me, anywhere in your testimony?

A. I did not.

Q. Why not?

A. Because my understanding of the order -- and

my whole process was to follow the order. My understanding of the order was that any capital costs necessary to burn Powder River Basin coal should have been prudently invested in the 2003 time period, should be in the plant, should be in existence, and should not affect the decision in 2006 and 2007 to buy sub-bituminous coal.

Q. From where in the order do you gain that understanding?

A. If you'll give me a moment.

Q. Absolutely.

A. Page 39, bottom paragraph, and I'll read, "The refund amount is restricted to the types of costs which normally flow through the fuel clause. The capital and operating costs associated with converting the power plant to burn PRB coal is not the type of cost normally recovered via the fuel clause. Thus, the excess coal cost as calculated above, $9,056,256, while useful for purposes of a cost-effectiveness test, it is not the correct refund amount. Instead, the correct amount for purposes of cost recovery, hence refund, is the differential in the delivered costs of CAPP/foreign coal and the evaluated costs of PRB coal for 2003 through 2005. For purposes of cost recovery, we removed the operational and capital costs required to upgrade CR4

and CR5 to burn PRB, because these types of costs are normally recovered via base rates. Using witness" -- and they talk about how they removed it.

Q. Okay. Any other sections in the order on which you base your opinion that we've been talking about?

A. I guess I would be a little uncomfortable saying there weren't any other places, but that's the primary place I remember.

Q. Okay. Back to page 39, the section you read, one of the sentences says, "Thus, the excess coal cost as calculated above, while useful for purposes of a cost-effectiveness test." Do you agree with staff that that number in their process was useful for a cost-effectiveness test?

A. I agree there is a number that is a correct number, yes. If you are making a decision, an initial decision to invest money and you need to find out does that make sense, then you need to take all those costs into effect.

Once you have taken all those costs into effect and invested the money, it becomes a sunk decision, and you don't keep looking at that as a barrier in the future. You've invested the money, and you keep on making those ongoing decisions. Sunk

decisions should not affect future decisions.

Q. But you would agree that as the Commission is -- what the Commission was ruling on in the order, again, 07-0816, you would agree with me that the Commission found that it was useful for purposes of a cost-effectiveness test to consider capital costs in that analysis?

A. For the initial decision.

Q. That's right. Let me ask that question better. That was horrible. Would you agree with me that the Commission considered the cost of any needed capital upgrades in their analysis, as reflected on page 39, the first paragraph?

A. I would agree that they did do that.

Q. And would you agree that the Commission and staff -- well, the Commission found on page 39 in that last paragraph that it was useful for the purposes of their cost-effectiveness test?

A. I will agree they did say that.

Q. Okay. Now, if Progress Energy Florida needed capital additions above and beyond those that the Commission considered in the 060658 docket to burn Spring Creek coal -- I'm sorry, the Kennecott coal that you've used in 2006, would you agree that it's also similarly useful to consider the cost of those capital

items in a cost-effectiveness test?

A. If you assume the initial cost, and then if there were new costs to burn a particular coal, then, yes, you would go through that same process.

Q. Did you perform any analysis to determine whether Progress Energy Florida would need any additional new incremental capital upgrades to burn the 2006 coal that you sponsor in your testimony?

A. I did not.

Q. Why not?

A. Because I saw no information in the record that additional capital would be required.

Q. What do you mean by that?

A. I mean there was an analysis, an evaluation of the bids. There was probably not a lot of information about Powder River Basin coal, because the plant could not legally burn that coal, so there was not a lot of discussion about any costs to burn coal which they could not legally burn. So there was just no information in the record that said in order to burn this particular coal, or any other coal on that list of bids, that there would be additional capital required. There's just no record of that.

Q. And again, you didn't do any independent analysis on this topic?

A. I did not. I saw no reason to. I mean, my understanding was that there had been an analysis made, and the cost of converting the unit to burn Powder River Basin coal had been done, and that initial step had been determined, and it was still the economic thing to do in the prior case.

Q. Okay. With respect to the 2007 Indonesian coal that you used in your analysis, did you perform any analysis to determine whether Progress Energy Florida would need to add any new incremental capital additions that were not considered in the prior docket to Crystal River 4 and 5 to burn that Indonesian coal?

A. I did not do that evaluation or any evaluation about that.

Q. Why not?

A. Again, for the same reason. It was my understanding that that cost of changing the unit had been calculated and had already been assumed to have been -- should have been put in in the 2003 time period, and there would not be any costs for that coal that was different than it would have been in the prior case.

Q. Okay. But my question was if there were any incremental equipment upgrades that were needed in addition to the ones that the Commission assumed would have been made by 2003 in the prior docket.

A. I agree with you that the theory is that if there's additional capital to be spent, you would use that to make an initial evaluation that to burn these particular coals, there was something else that had to be done, and you would use that as an initial step. But I see no record or no indication that that was a need, that there was any reason. And based on my experience in looking at these coals, I don't see any additional work that would need to be done to burn these particular coals.

Q. Okay. Mr. Putman, based upon your experience in the coal industry, if a purchaser wants to buy a set amount of tons of coal per year, do you generally find that that purchaser gets a cheaper price if they buy that same set of tons per year over multiple years versus just one year, or is it the same?

A. My experience says that it depends on the expectations of both parties about the future value of coal. If the seller of the coal views that prices are going to go up, their costs are going to go up, reserves are going down, they're going to price future coal at a higher price than current coal. If the buyer says that the markets are going to go down, everybody knows there's more coal coming out of the Powder River Basin, or whatever, they're going to have an expectation that

they can buy coal in future years cheaper. So it all depends on the expectations, and there's not a standard answer to that question.

Q. Fair enough. So a one-year contract versus a three-year contract, sometimes the one-year may be more expensive, sometimes it may be cheaper; it just depends?

A. Correct.

Q. Okay. The Kennecott bids that you used for your 2006 analysis, do you know if they were a one-year, two-year, three-year bid?

A. The offer was for three years.

Q. Okay. In your opinion, if you can tell me, what would have happened to the price of that coal if PEF would have come back and said, "I don't want it for three. I want it for one"? Would it have gone up, down, or stayed the same?

A. That would be subject to the expectations of the parties, so I really cannot answer that. I mean, negotiations go in all different directions. There are lots of different factors involved.

Q. But you would agree with me that three results could have happened there: The price could have gone up, the price could have gone down, or it could have stayed exactly the same?

A. I agree that one of those things would have

happened.

Q. Okay. Again, based on your experience in the industry, if a coal supplier bids a response to an RFP, you know, if someone asks for coal and they bid a response, how long will they generally hold that price open in their response for the buyer to make a decision?

A. Part of the bidding process is that you will tell the -- the producer will tell the company how long that bid is good for, and normally it's like a 30-day period. It's a limited period, as stated in the bids. And whether or not they'll stick to that is again based on expectations and other opportunities. But normally a producer will also say that these are subject to prior sale. That's a standard term that often appears. If somebody else comes along and buys this coal, you're out of luck.

Q. Right. In your experience, have you ever seen a bidder hold a price open for a buyer to move on for a period of three months.

A. If there's some discussions going on, I've seen that time period.

Q. Okay. You've seen it specifically for three months?

A. Yes.

Q. Do you recall any specific details about that

transaction?

A. No. My experience at Southern Company, we had some negotiations that would have gone that long, yes.

Q. How about six months, same question?

A. That's pretty long. I don't recall any going that long.

Q. Any longer than six?

A. No.

Q. Okay. Based on your experience, if a coal purchaser wants to hold an option to buy open for a longer amount of time, is that something generally a purchaser has to pay for or give value for?

A. I've seen that discussed. I've never seen -- my experience is that I've never seen anybody pay for an option to hold a bid open. I've seen them pay an option value for the right to buy coal, to extend the contract by two years, and you have a right to buy a third year, kind of an option. I've seen people pay for that, but not just to hold open an initial bid.

Q. But optionality with respect to pricing and when you buy and how you can buy, that does have value in this market?

A. It does.

Q. Okay. With respect to barge contracts to transport coal, have you ever seen contracts, barge

contracts that have liquidated damages provisions in them?

A. For nonperformance by the -- not moving the amount of tons? Is that what you're talking about?

Q. That's right, and I should have been more specific. Liquidated damages provisions related to underutilization or not utilizing the barges like the contract says you will.

A. I have seen those provisions.

Q. Are they common?

A. I guess I'm not sure what common means, but I've seen them.

Q. Okay. Have you seen them more or less in the contracts that you've reviewed? I mean, 30 percent of the time, 50 percent of the time?

A. I would consider it unusual. That would be the term I would apply.

Q. Unusual to see them?

A. To see them.

Q. Okay. How about penalty provisions for underutilization of the barges? Have you ever seen those?

A. I have, yes.

Q. Would those be common or uncommon?

A. I would say those would be more common.

Q. Okay. 50 percent of the contracts you've seen or --

A. I cannot put a number on that.

Q. And how about just default provisions, provisions in the contract saying if you don't use my barges like you say, you're in default of the contract? Have you ever seen those?

A. I don't recall ever seeing that provision.

Q. Okay. I want to jump back to your testimony real quick on page 28. Let's see. Starting at line 19, you say, "I determined that the blends I have used in the analysis of overcharges would contain in the range of 11,560 to 11,790 Btus per pound, which values satisfy PEF's own stated criterion." What do you mean there?

A. When I looked at the coals that Progress Energy was buying and would use to blend with and looked at the Btu of the coals I was using for analysis and looked at the possible blends or combinations, I came up with this range, 11,560 to 11,790. And what I recall from testimony in the prior case was that if the coal was over 11,000 Btus, the plant, particularly Mr. Hatt, was comfortable with that meeting the full generation capability of the plant.

Q. Okay. And that 11,000 Btus to meet the full generation capability, is that what you're talking about

there on line 21 when you say PEF's own stated criterion?

A. Correct.

Q. Okay. So -- what was that term you said again? It needs 11,000 Btus to obtain what?

A. Full load capacity of the plant.

Q. Full load capacity. So you would agree with me that PEF needs a certain amount of Btus to obtain full load capacity at Crystal River 4 and 5?

A. Correct.

Q. Okay. And you would agree with me that if the coal that PEF buys does not meet that Btu criterion needed to obtain full load capacity, it has to get those Btus from somewhere else; right?

A. That's correct.

Q. So, for example, if they bought just a 9,000 Btu coal and they need 11,000, they have to make those Btus up somewhere; right?

A. Correct.

Q. And those Btus, they just won't come out thin air. You've got to buy something to get them; right?

A. Correct.

Q. Okay. With respect to coal movements in the United States in 2006, do you have any knowledge about any potential -- or any transportation constraints via

rail?

A. From my general reading, I do not know of any major disruptions or major problems in 2006.

Q. What do you define as major?

A. Something that would reach the point of taking complaints about the railroads to the regulatory people, the Interstate Commerce Commission or its replacement, to Congress and those kind of things like happened in 2005.

Q. Well, in 2006, if a plant had contracted for delivery of PRB coal and it didn't get it and it had to go to another market to get different coal to replace what they didn't get in 2006, would you consider that to be major?

A. If they actually had to go and buy other coal, yes, major for that particular company. You can have disruptions that will affect one company and not affect the entire market.

MR. BURNETT: I do want to ask you if -- you had mentioned that Plant Scherer had used some Indonesian coal. I'll hand this out. I'll mark this as Exhibit 1 to your deposition.

(Deposition Exhibit Number 1 was marked for identification.)

BY MR. BURNETT:

Q. I want to reference you down there to "Georgia Power's Scherer plant may test Indonesian coal in 2006." You will see there that the article says that Plant Scherer was going to test Indonesian coal in 2006 for lagging PRB deliveries, and then another source says those were overblown. I just want to ask you first, do you know anything about what this article is talking about here?

A. I do not. Like I said earlier on, I'm less familiar with what was going on at Scherer than I am at Miller.

Q. Okay. So with respect to what the author of this article is talking about, you have no independent knowledge about this series of events?

A. No, I do not.

Q. And in the last paragraph, the test burn of Indonesian coal in the first half of 2006, you don't know anything about that at Scherer?

A. No.

Q. So you don't know if Scherer actually tested Indonesian coal in small quantities before they used it in 2006?

A. It's my understanding they burned coal there in 2005, but I don't know about a test in 2006.

Q. Okay. I was just talking about there in that

second to last paragraph where it says, "While Georgia Power probably won't purchase imported coal for the Scherer plant this summer, the plant may test a cargo of Indonesian coal next year." So you didn't know anything about that?

A. This is dated August 2005?

Q. Right.

A. No, I did not.

Q. Okay. Are you aware of any transportation constraints in 2006 for water deliveries of coal?

A. I'm not.

Q. Are you aware of any impacts that Hurricanes Katrina or Rita may have had on coal deliveries for Florida in 2006?

A. I'm not specifically aware of them. I mean, I know there were hurricanes and there were problems.

Q. Okay. Same question for 2007.

A. I'm not aware of any specifically.

Q. Do you know what a gearless Panamax vessel is?

A. Generally.

Q. Can you tell me?

A. It's a way of unloading the coal from -- there are different kinds. There are geared and gearless ways of unloading the coal. That's about as much as I know.

Q. Okay.

A. And different kinds of facilities receiving that coal would be better with one versus the other.

Q. Do you know whether at the International Marine Terminal coal in gearless import vessels must be discharged from the import vessel to a river barge and then from the river barge to the ground before they can be blended with other coals?

A. I'm not specifically aware of their process for unloading.

Q. The same question for United Bulk Terminal.

A. I'm not aware.

Q. Do you know what PEF's transloading contract rate for gearless Panamax vessels is for IMT?

A. I do not.

Q. Are you aware of an incident in October 2006 where a Panamax sea vessel struck the dock at IMT?

A. I am not.

Q. What kind of vessels would the Indonesian coal that you contend PEF should have burned in 2007 be moved in from Indonesia to the United States?

A. I'm not specifically aware of that. They quoted a size, but that was all. They didn't say whether it was gearless or geared, not specifically.

Q. Okay. Is it fair to say that a purchaser of coal may not always get all the coal they contracted for

in the time frame they want it due to delivery problems?

A. That certainly can occur, yes. It doesn't necessarily always occur or often occur, but it can occur.

Q. Do you agree with me that when calculating transportation costs for coal, it's important to make sure you account for all the costs that would be involved to ensure that your estimates are accurate?

A. Yes.

Q. And would you agree with me that in calculating transportation costs, if someone has overlooked a cost and failed to account for it, it would be important to go back and correct that estimate to account for all the costs involved?

A. I guess the question is what is the purpose of the number. I mean, if it's a number that's going to be used or you're going to contract for it or it's going to become truly important, then, yes. If it's just a number, then it becomes less important to make corrections, so its purpose would make a difference.

Q. How about a number filed in a regulatory proceeding asking for $62 million in coal refunds by an expert witness? Would it be important to correct that number if it omitted transportation costs that should have fairly been included?

A. I guess I'm --

MR. McGLOTGHLIN: I'm going to object to the form. Mr. Burnett, if you could show him the particular cost that you're referring to, he might be able to form a better answer.

MR. BURNETT: Thanks. You can answer.

A. I mean, if there was an error, then, yes, it ought to be corrected. But who should correct it would depend on who made the error.

MS. BENNETT: I'm wondering if we could take a quick break.

MR. BURNETT: Absolutely. This is a perfect time.

MS. BENNETT: Thanks.

(Short recess.)

BY MR. BURNETT:

Q. Okay. Mr. Putman, I'm going to try another hypothetical and try to get through it without messing it up. I'm going to hand out a paper so you can visualize what I'm talking about. I've done this in handwriting, so if you can't read anything, let me know, but I'm going to walk through and see if we can use this. I don't want to make this an exhibit yet. I may not use it.

Okay. Mr. Putman, I realize that the prices

and some of the assumptions here aren't going to be consistent maybe even with what can happen in real life, but I'm using this more for the mathematics than any application it really has to coal qualities or anything. But in my scenario here, what I've called Coal A at the top of this page, I'm assuming that one ton of this coal gives you one Btu and that you can buy this coal for $4 a ton. So just in this simplistic little scenario, would I be right that the dollar per Btu would be $4 per Btu?

A. Yes.

Q. Okay. And for my Coal B there, I've done the same thing, except I've said one ton of this coal would give me two Btus, and it costs me $5 a ton. So would I be right to say that that would be $2.50 per Btu?

A. Yes.

Q. Okay. My first scenario -- I'm going to do some mixing or blending here. My first scenario I have there is a mix of 500 tons of Coal B with another 500 tons of Coal B, and you'll see there that 500 tons and 500 tons obviously equals 1,000 tons. Am I right?

A. 1,000 Btu? Oh, okay.

Q. 1,000 tons.

A. I'm sorry. Yes.

Q. And then the 500 tons of the first Coal B

would give me 1,000 Btus, and the 500 tons of the second Coal B would give me 1,000, to equal a total of 2,000 Btus. Am I good so far with my math?

A. So far.

Q. Okay. And then the resulting cost from these equations of the 500 tons of Coal B would be $2,500 on the first line and then $2,500 for the second, for a grand total cost of $5,000.

A. Okay.

Q. Am I good with my math so far?

A. So far.

Q. Okay. I've done sort of the same thing down at the bottom, except for Coal B I've got 500 tons giving me 1,000 Btus at a cost of 2,500. Then I've mixed in some Coal A, 500 tons of that, to give me 500 Btus at a cost of 2,000. Am I still good with my math?

A. Okay.

Q. Still good with my math?

A. Yes.

Q. Okay. So in this equation I'm using 1,000 tons of coal, but I'm getting 1,500 Btus at a cost of $4,500. Still good with the math?

A. Yes.

Q. Okay. I'm sorry. I just want to make sure I haven't screwed this up.

So in both of these scenarios, you would agree that I have 1,000 tons of coal; right?

A. Yes.

Q. But in my first scenario, Coal B and Coal B, I get 2,000 Btus; right?

A. Yes.

Q. In my second scenario, Coal B with Coal A, I get 1,500 Btus; right?

A. Yes.

Q. So if I wanted to get those 1,500 Btus up to the 2,000, I have to buy some more coal; correct?

A. That's correct.

Q. And if I bought 500 more Btus of Coal A, it would cost me $2,000; correct?

A. Okay. Yes.

Q. And that would bring my total cost in the second scenario up to $6,500; right?

A. Yes.

Q. And if I bought 500 Btus of Coal B, it would cost me $1,250; right?

A. Yes.

Q. And that would bring my second scenario up to $5,750; right?

A. Yes.

MR. BURNETT: Okay. I would like to attach

that as Exhibit 2 to the deposition, please.

(Deposition Exhibit Number 2 was marked for identification.)

BY MR. BURNETT:

Q. Now, I would like to turn to your Exhibit DP-7 -- please. I'm sorry, DJP-7, page 1 of 3. Do you see on line 13 where you come to -- if you go over a little bit, you have 537,890 tons of coal.

A. Yes.

Q. And that's the actually delivered highest cost coals; right?

A. That's correct.

Q. And then on line 22, you have the same 537,890 tons of the replacement coal; correct?

A. Correct.

Q. For the MMBtus on line 13, you show 13,338,806; correct?

A. Correct.

Q. For the MMBtus on line 22, you show 10,104,996; correct?

A. That's correct.

Q. So while the tons are the same, the Btus are different; correct?

A. That's correct.

Q. So you need to buy some coal here, don't you,

just like in my scenario?

A. It depends on what your goal is.

Q. Well, my goal is to get the same 13,338,806 MMBtus.

A. Okay. That was not my goal in this analysis.

Q. Okay. But you would agree with me that if that was my goal, I need to buy some more coal?

A. If you are trying to get that many millions of Btus, then, yes.

Q. Okay. Why was that not your goal in this analysis?

A. Because my understanding of the clear order was that you could blend 20 percent by weight, and so that's what I'm doing. I am matching the weights, the tons from one type to the other type, what was actually delivered versus the evaluated cost of what could have been bought.

Q. But you would agree with me with reference to your Exhibit 7, page 1, that although the tons match, the Btus do not; correct?

A. They do not match; that is correct.

Q. And I think earlier in your deposition we established that Crystal River needs a certain amount of Btus to run, and they're not going to come out of thin air; right?

A. That's correct.

Q. Okay. Jumping over to page 2 of that same exhibit, Exhibit DJP-7, I would note on line 34 there you show 525,386 tons of highest coals actually delivered; am I right?

A. That's correct.

Q. And then on line 43, we show those same tons of 525,386; is that right?

A. That's correct. And those are the numbers that are 20 percent of the coal actually delivered for those two years.

Q. Okay. And on line 34, we show the Btus of 13,035,202 compared to the Btus on line 43 of 8,946,330; is that correct?

A. That's correct.

Q. And again, those numbers are different; correct?

A. They are different.

Q. Okay. I would like to refer you to Exhibit DJP-6 of your testimony. Do you know whether Progress Energy included SO_2 emission allowance costs in its calculation of the evaluated cost for the bids received that are reflected on this document?

A. I do not know that. I know that they would have used SO_2, and if they ran the VISTA model, it would

have accounted for SO_2. Whether they would have used the allowance cost, I do not know.

Q. Well, if SO_2 has been accounted for in some way in what you have as Exhibit 6 to your testimony, why would you make a separate second damages calculation regarding SO_2 emissions on your Exhibit 13?

A. Because I followed exactly the outline of the process that was adopted in the last case, in which case they said to use the evaluated cost of coal, and they also then came up with a penalty determination based on SO_2 allowances. There were two separate steps in the last case, and I followed those same two separate steps in this case.

Q. Would that constitute a double-dipping of damages?

A. I can't answer that, because I don't know how SO_2 -- sulfur is used in the evaluation process to come up with evaluation cost. Sulfur by its nature creates Btus. If you burn sulfur in a power plant, it creates Btus. It creates pollution, but it also creates Btus. So at a level, high sulfur creates Btus when it's burned, and you have to deal with it.

So depending on how the model evaluated sulfur and its impact and whether or not the cost of the allowance was also the same price that was assigned to

sulfur in their process, and I don't know the answers to those questions.

Q. Okay. Fair enough. You agree with me that test burns of a new type of coal are needed if a plant has never used that type of coal; correct?

A. It depends on how different the coal is from what you are familiar with.

Q. What if it's very different?

A. If it's very different? I'm not sure what very different means, but there's a range where you can be comfortable that you know how that coal is going to react in your boiler. There's a range where you get uncomfortable. If you're uncomfortable, you ought to have a test burn. If you're comfortable, it's not necessary.

Q. Okay. You would agree with me that some precipitators may need sulfur injection systems to deal with sub-bituminous coal; correct?

A. That's correct.

Q. You don't dispute that the precipitators on CR4 and 5 may need a sulfur injection system to burn sub-bituminous coal, do you?

A. I do not know the answer to that. It would really depend on whether they're hot precipitators, cold precipitators, the size of the precipitator box, and

other kinds of issues that I'm not familiar with.

Q. I think that's the same answer you gave me in your last deposition.

A. That's scary.

Q. Do you know what PEF's opacity limitations are at CR4 and 5?

A. Not specifically, no.

Q. Do you know them generally?

A. No.

Q. How about CR4 and 5's particulate matter discharge limitations?

A. I do not.

Q. How about CR4 and 5's mercury discharge limitations?

A. I do not.

Q. Do you know what modifications are currently being made to Crystal River 4 and 5 for environmental compliance issues?

A. I have read the permit request, and I assume that those are being performed, but all I know is what was in the request for the construction permit.

Q. Okay. What do you assume is being done now with regard to what is actually being done there?

A. They were putting in scrubbers. They were putting in SCRs. They were putting in an ash reburn

system. Those are the ones I recall.

Q. Okay. And other than reading that permit and what you recall, you don't know of anything else?

A. No.

Q. Haven't done any sort of analysis on anything else?

A. No.

Q. Have you performed any analysis on how your 2006 coal in your testimony may impact this equipment? And by this equipment, I mean the ones we just talked about that you've read in the environmental permit and you assume are taking place.

A. I have not done that analysis.

Q. Why not?

A. Again, I base my information on what Progress Energy evaluated in their evaluation process of what penalties and premiums they would assign to those coals based on their knowledge of their units. The nature of the VISTA model, if it's run properly, is very unit-specific to determine what the costs are for different characteristics of the coal, so I relied on Progress Energy.

Q. I'll ask you that same question for Indonesian coal.

A. The answer is the same.

Q. Okay. I think most of these are questions from the last time I took your deposition, so hopefully we can move through these quickly. I just want to make sure the answers are still the same as the last time.

You would still agree with me that even if a certain coal is the lowest cost option for a plant in one year, market conditions can change and make other types of coal more economic in other years; correct?

A. I would agree with that. And I'll also say that means you've got to be flexible with your systems.

Q. And you also agree with me that the transportation component of coal cost is significantly higher than fuel cost itself; correct?

A. Say that again.

Q. Sure. You agree with me that the transportation component of coal cost is significantly higher than the cost of the fuel itself?

A. Not necessarily as a general rule, no. Some coal moving from some locations, that's true; some coal moving from other locations, it's not true.

Q. Well, in your last deposition, I said, "How did Southern Company come to realize that PRB might be more economical than other fuels?"

On page 63, line 11, you say, "It's important to know that the transportation component of the cost is

significantly higher than the cost of the fuel itself, and so dealing with the railroads was the most critical part."

A. And that question dealt specifically with Powder River Basin coal. For Powder River Basin coal coming to Crystal River or to Southern Company, transportation is a higher component than the coal cost. That's not true for coal coming from other areas.

Q. So that's not true for the '06 coal you used in this case?

A. If you are talking about Powder Riven Basin coal coming to Crystal River, transportation will be higher than the coal cost.

Q. Well, I'm saying your '06 coal that you're using in this case coming to Crystal River, is that true, that transportation --

A. That is true.

Q. Okay. How about the Indonesian coal?

A. Well, that coal was bid delivered to a terminal in the U.S., so it is a combined coal and transportation cost. My expectation is that, yes, the transportation would be the higher component, because that coal was very cheap at the mine.

Q. Okay. Here's another question I asked you back in the last case. You would agree with me 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. If the coal is different, you should do a test burn, and you should check your economics, and you should make sure you know what you're doing. I don't know about a second test burn. I don't know why you would need to do a second test burn if you did a good first test burn.

Q. But on page 41 of your last deposition, you say at line 4, beginning on line 4, "If the economics are still okay, they could implement recommendations from that firm, and they can conduct a shorter second test burn if needed." So you would agree with me that there are situations where you may need to do a second test burn?

A. There could be situations.

Q. Okay. Since the last time I talked to you on the record, you've still never worked at CR4 and 5 as an employee or contractor; correct?

A. I have not.

Q. And you still haven't operated any controls at those plants?

A. I have not.

Q. At the time I talked to you last, you had never researched or studied PEF's experience with receiving train deliveries of coal at CR4 and 5. Is that still accurate?

A. That is correct.

Q. Okay. Similarly, you had never researched or studied PEF's experience with receiving barge deliveries of coal at CR4 and 5. Still correct?

A. Yes.

Q. The last time I talked to you, you said that you had never researched or studied whether there are rules and regulations dealing with what kind of trains can come into Crystal River because there's a nuclear plant there. Is that still correct?

A. That's correct.

Q. And at that time, you had never researched or studied whether there are rules and regulations dealing with what kind of barges can come into Crystal River because there's a nuclear plant there. Still correct?

A. That's correct.

Q. And at that time, you had never researched or studied whether there are any physical constraints as to what kind of barges can come into Crystal River. Still correct?

A. That's correct. I am aware that they have

been doing work on upgrading the barge unloader. To what extent that changes the kind of barges -- I just am aware that they are doing that.

Q. Okay. Let me jump back really quick to page 20 of your prefiled testimony. And it's actually on question 19. The question is, "Would the absence of a stack test specific to the Indonesian coal have prevented the transaction, even if PEF had performed a test with PRB sub-bituminous coal and had obtained a permit at the time of the RFP?"

And tell me if I'm mischaracterizing this, but it looks like on lines 3 through 12, you determined that a stack test would not be needed, and if anything were needed, it would only take about four days. Is that generally correct?

A. Where did you point to at first?

Q. Sure. I'm sorry. I started you off on --

A. You said question 19, and I'm not sure what --

Q. I'm so sorry. Page 19. I'm getting goofy. Page 19, line 28 is where the question starts, and then you answer that question on lines 3 through 20. And to save some from reading it, I think your final conclusion is that you wouldn't need a stack test for Indonesian coal, but if you did, it would take about four days.

A. That's correct.

Q. Okay. Do you still stand by that as we sit here today?

A. Yes.

Q. If Progress Energy Florida believes what you say and we start burning blends of Indonesian coal, you won't be legally liable to PEF in any way if something goes wrong with the plant, like an outage or a derate, will you?

MR. McGLOTGHLIN: Object to the form.

A. No.

Q. And you won't have to answer to the Florida Public Service Commission if something goes wrong with that, will you?

A. I assume I would not have to --

Q. I mean, they don't have jurisdiction to call you in and sanction you, do they?

A. Not to my knowledge. I would have to consult with my attorney on that one.

Q. And you're not posting any sort of bond or any kind of insurance for PEF to use to buy replacement power if a derate or outage happens while burning that coal?

A. I am not.

Q. Okay. I think I just have a few more.

Regarding your 2006 coal that you used in your

analysis, how many tons are you assuming that PEF would buy and move to Crystal River?

A. In 2006, the number was 537,890 tons.

Q. And what would be the transportation cost per ton to get that coal to Crystal River?

A. I used the number that was assigned by Progress Energy. Do you want me to read that number?

Q. If you could find it for me, that would be excellent.

A. (Examining documents.) I'm not finding the specific transportation cost, only the total cost.

Q. Okay. Do you know anywhere else where you could find it?

A. No.

Q. Okay. With respect to that transportation cost we were talking about, do you know what elements make up that price, if we could find it?

A. I do not know. It was again produced by Progress Energy.

Q. I want to ask you those exact same questions for the Indonesian coal you used in 2007.

A. For 2007, I did use a number to move the coal from -- now that you bring it up, I may have used that for 2006, a number that was developed by your expert, Heller, to transport the coal from a transloader to the

plant.

Q. Okay. You said you may have used it. As we sit here today, do you know for sure what --

A. I know I did for 2007, and I'm quite sure I would have for 2006 also.

Q. Is there anything you could do to refresh your recollection on 2006?

A. (Examining documents.) I did not do that in 2006. I used the total evaluated cost off the spreadsheet for 2006.

Q. Okay. So if I understand correctly, for the 2006 transportation cost, you used the evaluated cost off the spreadsheet. And you're referring to -- that looks like it's Bates number PEF-FUEL-00135.

A. Correct.

Q. Okay. Now, with respect to the 2007 number that you used for the transportation cost, you said you used a number that Mr. Heller had developed?

A. I said that, but again, I used the total evaluated cost, which included transportation cost. In this case, the transportation cost is spelled out on the spreadsheet, but I still used the total off of that.

Q. What's the Bates number designation on that spreadsheet you're looking at now?

A. It's 001589, PEF-CC-001589.

Q. Okay. Thank you. And do you know what elements make up that transportation cost that you used for 2007?

A. No. Again, I relied on Progress Energy.

Q. Okay. Are you familiar with the Memco Barge contract that Progress Energy Florida entered into in 2004 for barge services related to 2005, '6, and '7?

A. I have seen it, yes.

Q. Okay. Have you reviewed it?

A. I have reviewed it.

Q. When did you review it?

A. In the last six months.

Q. Did you take any notes upon your review of that contract?

A. No.

Q. Do you have any specific recollection as you sit here today about what the general terms and provisions of that contract are?

A. Not very specific, no.

Q. Okay. Did you ever consider whether PEF's obligations under that contract could be impacted by the coal purchasing decisions that you say PEF should have done for deliveries in 2006 and 2007?

A. No.

Q. Why not?

A. I guess it did not occur to me that there would be issues.

Q. Okay. Do you know if PEF has a contract that allows for coal blending at the Alabama State Docks near Mobile, Alabama?

A. I do not know that.

Q. Why not?

A. It was not necessary for me to know that. Again, my analysis was following the steps outlined by the order in the prior case. I used the numbers that were available to me without breaking down the components, so it was not necessary for me to know that.

MR. BURNETT: Okay. That's all I have.

MS. BENNETT: Can I ask for another break? I need to talk to these guys and see if we can cut out any questions and add any.

(Short recess.)

MR. BURNETT: Joe, I don't want to make it a late-filed exhibit or anything, but Mr. Putman said he could get me a copy of that article about the Southern Company's --

MR. McGLOTGHLIN: We've got it in the room.

MR. BURNETT: Okay. Just if I could get it before we leave.

MS. BENNETT: I would also like a copy of

that.

MR. BURNETT: That's all I had.

THE WITNESS: Can the firm do that?

MR. BURNETT: Oh, yes, absolutely. I just didn't want to forget it before we left. Thanks, Lisa.

CROSS-EXAMINATION

BY MS. BENNETT:

Q. Mr. Putman, we met earlier today. My name is Lisa Bennett. I think we've talked several times over the phone.

Like Mr. Burnett, if my questions become confusing, stop me, and hopefully I can explain them to you.

A. Okay.

Q. I'm going to start on page 6 of your testimony. At lines 2 and 3, you stated that you took into account and applied the parameters of the Commission's decision in Docket 060658-EI, which was the prior docket. At the risk of being a long deposition, could you describe those parameters that you applied?

A. The key ones were that it would be limited to a 20 percent blend. There was a lot of discussion about the fact that it was supposedly designed for a 50-50 blend, and there was a lot of discussion that finally

came down to the Commission said a 20 percent blend is what will be used for that, and that it had to be blended off-site was another restriction.

The parameters were that you would compare coal actually bought and delivered to the plant versus coal -- the evaluated cost of coal that could have been bought in determining what the differences were. So you were comparing actual costs to evaluated costs. The 20 percent was based on weight, not Btus. And those are the parameters that drove my analysis.

Q. Were those the only parameters that drove your analysis?

A. I would say yes.

Q. Okay. In applying the parameters, you selected certain prices for coal, coal transportation, and SO_2 emissions, and I believe the coal prices and transportation prices that you selected were from RFPs issued by Progress; is that correct?

A. I'm sorry. Say that again.

Q. Were the prices that you used to plug into the formula that was provided in the order, did you obtain those from Progress Energy Florida's RFPs?

A. The prices for the evaluated costs for the coal that could have been bought came from RFPs. The prices for the coal actually delivered, the other half

of the equation, came off of 423 FERC data.

Q. And the RFPs, were those issued by Progress Energy?

A. That's correct.

Q. In choosing to use those RFPs as the prices that you included in the parameters, did you consider or look at or compare those to -- and I'm talking about the could-have-been-used coal. Did you compare them to any other coal or transportation prices?

A. No. I used the bids that came off of the RFP.

Q. Why did you not compare them to any -- or did you compare them to anything else? I think you answered that question earlier.

A. Because they were the ones they were offered in a competitive bid situation, they were the best measure of what could have been bought by Progress Energy for those time periods.

Q. There are other utilities in the United States, and specifically in the Southeast, that use PRB coal; correct?

A. Correct.

Q. And the prices those utilities pay for PRB coal and the transportation, they're reported to the federal government in the FERC 423 forms; is that correct?

A. Correct.

Q. And you're familiar with the FERC 423 database?

A. I am.

Q. Okay. Who reports the information to FERC?

A. The individual utilities.

Q. What types of information are reported?

A. The source of the coal, including the regions, maybe even down to the county level where that coal comes from. It talks about the number of tons delivered for whatever time period. It talks about some of the qualities of the coal, the Btus, the sulfur levels. It talks about what the price is, the delivered price, the total delivered price to wherever they view it as being delivered. Some utilities use delivered all the way to the plant. Some of them use delivered to a transloader, like Progress Energy does with some of their coal. It's those kind of components.

Q. And FERC maintains a website that includes all this information?

A. Correct.

MS. BENNETT: I'm going to give you some handouts. And unfortunately, John, I only have three sets.

MR. BURNETT: That's okay. Can I just look at

yours?

THE WITNESS: Well, you don't need but one.

MS. BENNETT: Well, that's 2006 and 2007.

THE WITNESS: Oh, okay.

MS. BENNETT: I would ask that these be marked as Exhibits 3 and 4. Exhibit 3 is the one that starts with 601, and Exhibit 4 would be the 701.

(Deposition Exhibits Number 3 and 4 were marked for identification.)

BY MR. BURNETT:

Q. If the Commission wanted to test your conclusions and witness Heller's conclusions on the correct price for PRB coal for 2006 and 2007 by looking at what other utilities paid for PRB coal and for its shipment, it could look at the FERC 423 website, couldn't it?

A. They could, but they should take great care to make the comparison, primarily because of the effect of transportation costs. It wouldn't make a number delivered to -- the first one that's listed, Miller steam plant, it's going to look very different than a price delivered to Plant Scherer or to Crystal River if it was buying that coal.

Q. Well, let me first start with the two handouts that I gave you, Exhibits 3 and 4. At the top -- well,

first of all, does this appear to be a 423 FERC database form?

A. Yes.

Q. At the top there are several categories. The first category says YRMON. That's year and month; is that correct?

A. Correct.

Q. And the second would be company name?

A. Correct.

Q. Can you kind of walk through the columns for me, what those are?

A. 195 is the number assigned to Alabama Power Company. It has the plant with the name and the number. The number 6002 is apparently applied to James H. Miller Power Plant, the Miller steam plant. It talks about whether or not this is a contract or a spot purchase. The "C" implies a contract. I don't see a spot on there, but it would be an "S" if it was a spot. The expiration date of that contract, 12/31/2008 in this case. The type of fuel, bituminous, sub-bituminous. This is sub-bituminous. The type of mine, surface or underground. It doesn't seem to make a distinction, but that's what the "S" and the "U" would be. And then it gets into the coal district, the state, the county. The source name, that's the name of the mine. And then it

gets into the quantity, 298.72 thousand tons, I would assume, the Btus per pound, and the sulfur content and the ash content, and then the total cost in dollars per million Btu or cents per million Btu.

Q. Okay. I'm going to ask you to take a quick look through the two handouts that I've provided and confirm with me that those are all sub-bituminous coals that are listed.

A. A quick look would say that's true.

Q. So let's go to the Miller plant.

A. Are you looking at '6 or '7?

Q. Let's start with '6. From my review or from my quick glance, it looks like there are several pages of coal that Alabama Power purchased for the Miller plant in 2006. Is that correct?

A. Correct. And these are monthly purchases, so the first ones, 601, are January 2006, then February, March, on through December.

Q. What is the lowest cents per MMBtu that Alabama paid, and for that matter, the highest, for 2006? Just take your time.

Let me rephrase that. Based on this handout, what are the lowest cents per MMBtu that Alabama Power paid?

A. Well, a quick look, there's one on here that

appears to say 57 cents. It's 604, about two-thirds of the way down, Black Thunder. Do you see that one?

Q. Uh-huh.

A. A quick look says that is the lowest.

For the highest, I see 238 cents on page 2, 606, also out of Black Thunder.

Q. Previously you said that the Commission would need to take into account several variables when they were looking at and comparing your estimate or Mr. Heller's estimate to the 423s. What kind of things would they look at when they were comparing Alabama Power purchases of sub-bituminous coal as represented and reported on the 423s?

A. The big unknown is the transportation cost. The cost is going to be a combination of the mine f.o.b. cost and the transportation cost, and that's how you're going to arrive at this, factoring in the Btus. So if you don't know that breakdown, it is very difficult to compare coal delivered to one plant versus coal delivered to another plant.

Q. What about the length of the contract? Does that factor into the cost?

A. It is a factor. When the contract was signed would be more important than the length, in my opinion, because it's all dependent on the market at the time.

Q. What about spot versus contract? Is there a differentiation between spot and contract purchases?

A. For Powder River Basin coal, there's not normally a lot of difference on a particular month, from month to month or time periods. Again, the important pricing is going to be at the time the decision is made, the agreement is reached between the buyer and the seller. There's not a lot of difference between spot and contract. There's some difference. It could be plus or minus, but not a lot. But from year to year, there could be big differences.

Q. How do the prices listed for Alabama Power for 2006 compare to your -- just the cents per MMBtu compare to the price that you gave to the Commission in cents per MMBtu?

A. Cash cost, because this 423 data would not take into account the evaluated cost, the impact on the boiler, so looking and comparing the cash cost, the one I used for 2006 was about -- one of them was $1.87 or 187 cents per million. Another one was 199.8 cents per million as their cash delivered cost. Comparing to, again, this range, a quick look would say that number is higher than the cost delivered to Miller.

Q. Okay.

A. Which does not surprise me.

Q. Why is that?

A. Because Miller is able to receive coal rail direct from the mine without any extra loading, unloading, transloading. It's a single line haul from the mine on Burlington Northern.

Q. Okay. What about the next set of purchases from Appalachian -- that one got cut off, plant 733. Are you familiar with that?

A. In all honesty, I'm not sure exactly what --

Q. What plant that is, or what company that is?

A. Right.

Q. Let's skip that one, then. I think you might be familiar with the next one, Georgia Power Company.

A. Right.

Q. Let's talk a little bit about 2006 and Georgia Power Company's purchase of PRB coal. Again, can you give me a quick glance and tell me the high and the low costs for PRB coal in 2006 purchased by Georgia Power as reported on this 423 form?

A. Well, I'm getting confused a little bit by some of these coals coming from South America at the end of Scherer.

Q. Are you talking about Glencore and Drummond?

A. Right. And those are significantly higher, but I'm not sure where those are coming from and why

they're going to Scherer.

But looking at the ones coming out of the Powder River Basin, for a high, I found -- on the second page, 607, right about in the middle of the page, there's a 237 cents. Farther down I find a 243.

For lows, maybe the first one on the list, 161 cents. That would appear to be the low one.

Q. Okay. What comparison could the Commission make between Progress's purchase -- your evaluation of what Progress should have purchased to the Georgia Power experiences as reported on this 2006 423?

A. The numbers would match a little closer, indicating that the transportation costs from the Powder River Basin to Scherer would be more similar to the transportation cost to Crystal River.

Q. Can you explain that a little bit more to me?

A. Again, if you look, the Miller ones are lower than expected at Crystal River. Crystal River, the prices that they expected to receive are more in line with the costs at Scherer. My expected difference is not going to be the f.o.b. price. Both Scherer and Crystal River buying coal out of the Powder River Basin at the same time would pay the same f.o.b. price, or very close.

So the difference is going to be in

transportation cost. Scherer, Crystal River, and Miller would pay the same price at the time, and then they would pay different transportation costs. And even though the Scherer transportation would be rail direct to Scherer, it appears from these numbers that its total transportation cost would be similar to bringing the coal from the Powder River Basin to the Mississippi River and down the Mississippi River and transloading it, and then taking it across the Gulf to the plant. That total cost would be similar to a rail direct to Scherer.

And I'm only making that assumption because the total costs are similar. I believe the f.o.b. price is going to be the same, so the transportation cost, even though different routes, appears to be more similar in total delivered cost.

Is that too complicated?

Q. No, no. It helped.

On this first exhibit -- I think it's Exhibit 3 -- bottom of the third page, there's a price in May 2006 for Florida Power for sub-bituminous. Do you see that?

A. Correct, yes.

Q. Is that the -- if you know, is this the shipment of sub-bituminous coal that witness Heller used

in his analysis?

A. It appears to be the Peabody coal that was 3,333 tons that was used for the test burn in May of 2006. And, yes, that is the one that Heller used in his analysis.

Q. Okay. And what are the cents per MMBtu there?

A. 275.71 cents per million, a very high number.

Q. What about the tons of coal purchased by FPC? Could you compare that to some of the other tons of coal purchased in 2006?

A. That's 3,000 tons. And if you look at the monthly tons bought by Alabama Power Company or Scherer or Appalachian, whoever they are, that's a very small amount of tons for a monthly purchase.

Q. Does Scherer have any that are 3.3 tons listed or reported on the 423?

A. From a quick scan of the numbers, I do not see anything like that.

Q. I'm going to ask you to turn to the 2007. That would be Exhibit 4. And rather than repeat this exercise, we agree that the same constraints apply, your concerns with Alabama Power's transportation costs would apply to 2007; is that correct?

A. That's correct.

Q. And we've also got Scherer reported for 2007.

And you would agree with me that the same constraints apply for 2007 for Scherer?

A. Correct. I would make the observation that there's clearly an increase in cost from 2006 to 2007. The average costs for 2006 are a little over the average costs for 2007 on a quick scan.

Q. Okay. On the next to the last page of Exhibit 4, I want you to turn to where we start talking about TVA. That's the Tennessee Valley Authority; correct?

A. Right.

Q. To the Cora Dock. Can you compare the transportation that TVA would have to employ to get coal to the Cora Dock with perhaps Progress's transportation of sub-bituminous coal to its plant? Did that confuse you?

A. No. I would think that the cost to TVA to move coal from these mines to Cora would be similar to what Progress Energy would pay to move coal to the Cora Dock.

Q. And where is the Cora Dock?

A. It's on the Mississippi River.

Q. Is that in St. Louis?

A. I think that's right, that area.

Q. And TVA reported several shipments to Cora Dock in 2007; is that correct?

A. Yes.

Q. Again, what were the lowest cents per MMBtu and the highest that are reported here on Exhibit 4?

A. For a low, I see one for 111 cents in the middle of that group. For a high, I see 178 cents, Black Thunder, for the April time period, 2007.

Q. How do those compare to your 2007 evaluations of coal that PEF should have purchased?

A. In 2007, we said they should have purchased -- the lowest cost was Indonesian coal, so we're not talking about coal costs.

Q. The cents per MMBtu.

A. Okay. The cash cost would be 343 cents for one and -- both around $348 -- I'm sorry, 348 cents, compared to these being a third of that.

Q. Okay.

A. Again, you're not ending up in the same place.

Q. Can you explain that?

A. I mean, Cora Dock is not to the transloader like IMT. This one is for delivery to IMT or Alabama State Docks or one of the transloaders. So there was a piece of transportation missing to move it from Cora to the transloading dock.

Q. They would move it from Cora to the transloading dock at IMT; is that correct?

A. That would be -- yes. If it's going to Cora, it would go to IMT or the TECO facility. But Indonesian coal could go to those facilities or to the State Docks, Alabama State Docks.

Q. And I do want to talk a little bit about the Indonesian coal now. You recommended that in 2007, Progress Energy should have purchased the Indonesian coal that was the lowest evaluated price according to their evaluation; is that correct?

A. That's correct.

Q. Let me start with a basic understanding. In your opinion, is the plant designed to burn all types of sub-bituminous coal, any type of sub-bituminous coal?

A. I guess I need to preface that with some explanation of what sub-bituminous coal is. Is that acceptable?

Q. That's good.

A. All right. Sub-bituminous coal is not based on what part of the world it comes from. It is a combination -- there are four ranks of coal. There's lignite, which is the youngest coal. Then there is sub-bituminous coal, bituminous, and anthracite. And there is a change based on the amount of carbon and the amount of moisture or water in that coal. Those are the big drivers to determine what rank it's in. That's

caused by long-term pressure and temperature changes in the laid-down vegetation. So sub-bituminous has got moisture and carbon at a certain level.

If you go all the way up to anthracite, most of the moisture is gone and it's all carbon. So it's very high Btu, hard, all those kinds of things.

But sub-bituminous gets into that rank or into that classification based on how much water and how much carbon it has. So once you classify a coal as sub-bituminous, it doesn't really matter where it comes from. It's going to act like sub-bituminous coal, and it's got pluses and minuses based on that.

Q. I thought I heard you say earlier that Indonesian was bituminous, but it's sub-bituminous coal; is that correct?

A. The coal we're talking about is sub-bituminous coal. There's a small amount, relatively small amount of bituminous coal in Indonesia, but that's not what we're talking about, and that's not what was being offered.

Q. And you also were talking about -- was it Miller or Scherer that you believed used some Indonesian coal?

A. Scherer.

Q. Was that bituminous or sub-bituminous?

A. Sub-bituminous. And Scherer does normally burn sub-bituminous coal.

Q. Back to my question, then. You've clarified what sub-bituminous coal is. So it doesn't matter from where it comes, in your opinion? It still can be burned at Crystal River 4 and 5; is that correct?

A. That's correct. Now, there are different characteristics that also impact some of that. It turns out that through nature, sub-bituminous coal in Indonesia that is being mined is very low ash and very low sulfur. The sub-bituminous coal in the Powder River Basin is low in sulfur and has a wide variety of ash. But the coal that's being offered into the market from Indonesia is very low ash, very low sulfur. In fact, one of the suppliers advertises or markets their coal as "envirocoal," saying that it is the perfect coal, whether you believe that or not.

Q. You also said that Indonesia is the second largest exporter of coal earlier in your testimony; is that correct?

A. Right.

Q. To what countries primarily has the Indonesian coal been exported?

A. Their biggest customers are in the Asian, China, India area.

Q. What about the United States? Have they become a purchaser of Indonesian coal, and is it a large purchaser of Indonesian coal? I guess that's a two-part question.

A. The U.S. has been an occasional purchaser of Indonesian coal.

Q. Why is that?

A. Partly because when the Asian market is booming, it is a better place for Indonesia to sell their coal, and only occasionally is there a competitive advantage to bring it to the U.S.

Q. Does that mean that long-term contracts for Indonesian coal are not advisable?

A. I would not say that. I would say if you can get a long-term contract and lock in a price, then there could be some real advantages to that. But you don't want to lock in a high price either.

Q. And are you aware of whether India and China have been experiencing significant economic growth over the past, 2006, 2007?

A. Absolutely.

Q. What happens to spot prices for Indonesian coal when that growth occurs?

A. It certainly has an impact. I will say that Indonesia as both a nation and individual companies has

a real desire to sell a lot of coal, because it brings a lot of revenue into the country. So they have a national policy towards encouraging the export of coal, and so the end result of that is that it sort of levelizes some of that spot coal influence. There's less fluctuation, because there's a lot of people trying to sell coal into that market.

Q. Okay. Let me go back into your testimony, page 6, lines 5 to 8. You mention the ability of CR4 and CR5 to burn a mixture of bituminous and sub-bituminous. I think you've explained that you believe that would cover all classes of sub-bituminous coal, including the Indonesian; is that correct?

A. Correct.

Q. Are there any technical journals or magazines like *Coal Report* that can support your analysis that Indonesian coal will behave as other sub-bituminous coals, specifically, as Powder River Basin coal behaves? Did I confuse you?

A. No. I'm thinking.

Everything I read talks about sub-bituminous coal as being a rank of coal, and coal that falls in that rank generally will operate and react the same as other coal in that rank. There's not going to be a lot of differences -- I mean, there will be some differences

because of some of the extraneous non-carbon, non-moisture pieces that are in there, whether that's ash or sulfur. But as a strong rule, sub-bituminous coal is going to act like sub-bituminous coal, wherever it comes from.

Q. Is it your position that Crystal River 4 and 5 are capable of utilizing a 20 percent blend of PRB without limitation?

A. It is my position that the Public Service Commission said that last time. It is my position, and I say it in my testimony, that the only way to know what Crystal River can do is for Crystal River to make a real effort to test coal to its maximum capability and determine that. It is not, in my opinion, up to the Commission to tell a plant what their limits are. Figuring out the penalty and figuring out all the things involved last time, that was appropriate. But it's my opinion, and I say it in my testimony, that until the plant makes an effort to find out what its capability is, nobody knows.

Q. Let me explore that statement. How does a plant explore its capabilities? What would a prudent plant do to explore its capabilities? For instance, my hypothetical, it suddenly looks like the moon can provide coal for us. And, of course, that's far off,

but what responsibility does the plant have, and how do they carry out that responsibility to evaluate a new type of coal or a new -- well, a new type of coal? What would the steps be for them to do that?

A. It's a pretty straightforward engineering process to lay out a plan that says, "Here are the characteristics of the coal, and here are the characteristics of my plant. We're going to test how variations in those coal characteristics impact my plant."

So in order to do that, I'm going to start with a level like this, and then I'm going to increase more sulfur, and I'm going to increase more carbon, and I'm going to increase more Btus. I'm going to lay out a plan that says, "Here's how we're going to carefully and in a controlled manner change where we are today to some point where we reach a point that says this is the limit. We cannot effectively do it safely. We cannot effectively get the generation we want out of it. There's some limit that we hit." And you lay that out in advance. You educate everybody in the plant, here's what we're going to do. We're going to do these kind of things, buy the coal, get the coal from the moon, bring it down here and work through that process, measuring, evaluating, getting input from experienced operators

step by step until you reach that limit.

Q. And walk me through step by step. I think Progress uses the VISTA model to begin with a paper test burn. Is that the appropriate thing to start with, or is there some other evaluation that needs to --

A. It's a good first step, but part of the thing about the VISTA model and the Coal Quality Impact Model, which I'm more familiar with, which was the predecessor -- as I understand it, they're very similar in their approach. What you're doing is taking qualities of the coal, and you are assigning a cost impact to that coal.

So if you're going to look at the grind of coal, how much energy, how much work does it take to grind coal into the level of dust necessary to go into the boiler, then you need to have ground that coal before so that you can determine what the cost is.

It is difficult, in my view, to take coal that you've never burned in your plant and run it through the VISTA model, because you don't have all the costs associated with it. For example, for Crystal River to take a coal, they would need to sort of get some other information from other plants that have burned that coal and use that to build their VISTA model for their plant in order to do that carefully.

Q. So what I'm hearing you say is the VISTA model

might be a nice start for a coal you know, but for the coal from the moon, we might have to look at another plant first to run the VISTA model. Is that --

A. To do it carefully and do it right, that would probably be a good step, or literature or some other place we can get that kind of information.

Q. And then how long of a time frame are you talking about exploring that new moon coal?

A. To actually run the test?

Q. Uh-huh.

A. Depending on how careful you are, you may want to run each step for a day or two days, sort of run a cycle. You could do that in a day. You could do that in several days, depending on how cautious you are and how much coal you've got to burn. But there's not really a standard.

I think what I said was about four days to run a test burn. You can get an awful lot of information in four days. I've seen people who said you need to have a test burn for 30 days. Thirty days is way too long. You don't need -- you have so much information then, more than you need. So you want to move and step through this thing reasonably quick so you can determine what you're trying to determine.

Q. Now, you said --

A. But you want to do it safely.

Q. I'm sorry. Are you finished?

A. Yes.

Q. A thought struck me. You said four days. Is that four days to set up to do a test burn, or is that just a four-day test burn?

A. Four days of burning the coal that you want to know about.

Q. What I want to know is how long from the time that a coal is available, known to be available, until you put yourself into the situation where you can run a test burn. What kind of time frame would be reasonable for a company?

A. That's a wide open question. I would say that acquiring the coal and getting the coal to the plant will take longer than setting up to run the test. If you are bringing coal, for example, from a transloader, it's going to take several days to move it across and unload it at the plant. And during that time, you could put together a test plan that would say, "Here's what we're going to do," and walk your way through it. So delivery of the coal is, in my view, the real constraint to a test burn.

Q. Okay.

A. And all that goes to the fact that test burns

should not be an obstacle. If you have the people and you sort of have a plan, you ought to be able to run through it.

Q. I'm going to go back to the parameters that we talked about earlier that you applied from the order. And I think you testified earlier in the deposition that you extended the parameters of the prior order into 2006 and 2007; is that correct?

A. That's correct.

Q. And can you tell me, should those parameters include the transportation of the coal, and did they?

A. They did, yes, the evaluated cost and the cash cost. And the evaluated cost as laid out on the evaluation sheets included transportation.

Q. Okay. And I think you've talked about this earlier, but did it include plant modifications?

A. It did not.

Q. And you responded to Mr. Burnett earlier that -- what were the reasons why it did not?

A. Because the assumption was that in the last case, evidence was presented as to what it would cost to make a change in the plant to prepare it to burn Powder River Basin coal. And that number was used to make the decision that it would have been economical to spend that money, spend that capital, and you still would have

saved money by burning the coal.

Q. Would extending the parameters apply to the dispatch as it applies to fuels performance?

MR. McGLOTGHLIN: I'm sorry. Would you repeat that for me?

BY MS. BENNETT:

Q. Does it include -- when you extend the parameters to apply the order in 2006 and 2007, does it also include the dispatch as it applies to the fuels performance?

A. I don't know what dispatch means. What do you mean by that?

Q. The dispatch of the units.

A. The economic dispatch in the order?

Q. Yes. Did your evaluation consider that?

A. I guess the answer to that is no, just because I didn't, and there were not any comments about the dispatch in the order. They were concerned about it being available and being able to meet full load. I'm really not sure what that means.

Q. Okay. That's fine. That's fine.

Would extending the parameters of the order into 2006 and 2007 include any speculations either on your part or Mr. Heller's part?

A. I work real hard not to speculate.

Q. Did you succeed?

A. Well, I guess we'll find out. I mean, to me, it was very much of what I call a cookbook process. The order had steps. It had a decision-making process to determine whether imprudence had occurred. And that to me was decided, because in the first order they said they didn't have the permit, still didn't have the permit, and it was imprudent.

To determine how much the penalty was, they said to compare 20 percent by weight blended off-site. Blending it off-site, from a practical standpoint, meant that you could only do it at a transloader where there was a blending capability. And 20 percent of the tons that arrived could have been blended, so figure out what those number of tons were, and figure out the highest priced coal that was purchased and was delivered, as allowed in the order, and you compare that to the evaluated cost of the offers that were made. It was very much of a cookbook step resulting in the answer.

And then you add to that the sulfur impact, and that process was also laid out in the order, and I followed that process.

Q. In the sulfur, the SO_2 emissions allowances that you have in your Exhibit DJP-11, my understanding or my reading of DJP-11 -- I'll give you a minute to get

there.

A. Okay.

Q. My understanding is that you used the forecasted prices for 2006 and 2007. Is that correct?

A. They came off of a page called "Allowed Price Forecast" that was prepared in April of 2006, so it would be forecasted.

Q. Do you have the actual SO_2 emissions allowances for 2006 and 2007?

A. I do not. And this sheet was the same sheet that was used in the earlier case.

Q. Do you have access to the SO_2 emissions allowances, the actual prices for 2006 and 2007?

A. I don't have them, no. I mean, I'm sure they're available, but I don't have them.

Q. Okay. Would they be available to you?

A. Yes. I'm sure you can get them on the Internet.

MS. BENNETT: Could we have that as a late-filed exhibit, Joe?

MR. McGLOTGHLIN: Yes.

MS. BENNETT: Make that 5.

(Late-filed Deposition Exhibit Number 5 was identified for the record.)

BY MS. BENNETT:

Q. I'm going to ask you now to turn to your DJP-6 exhibit. It's probably just a quick question. I want to make sure I understood. There's a column heading. "Max SO_2." Can you explain what that means? Is that pounds of sulfur dioxide per million Btus?

MR. McGLOTGHLIN: Repeat your reference again, please.

MS. BENNETT: It's DJP-6. There's a column heading, "Max SO_2."

MR. McGLOTGHLIN: I'm there. Okay.

A. That's the purchase specifications as supplied by the supplier. And, yes, it would be in pounds of SO_2 per million Btu.

Q. Okay. Then I'll ask you to turn to page 24 of your testimony, lines 17 through 25, and then continuing on page 25, lines 1 through 7. I guess I should have kept you at DJP-6 also.

Can you tell me why the Kennecott coal bid for PRB was 9,350 Btus per pound? That's in DJP-6, and then also . . .

A. You want to ask that again?

Q. It appears that the Kennecott coal bid for PRB is 9,350 Btus per pound. I think that's reported in DJP-6.

A. Okay.

Q. Do you know why it's -- isn't the typical heat content for PRB coal normally 8,800?

A. It ranges from 8,200 to 9,500.

Q. So this is on the high end?

A. Correct.

Q. But it's within the range of sub-bituminous PRB coal?

A. Correct. And if you look down at the other Kennecott bid, you'll see that's even higher.

Q. What is the other Kennecott bid?

A. Well, I used two bids off of that. On DJP-6, there's a Kennecott, which is number two, and then there's another Kennecott two from the bottom. They're two different bids, different coals being bid, different prices, but that one has a 9,963 Btu level.

Q. And also on your DJP-6, is there an inflation or an escalation allowed for in the evaluation of these bids for the RFP?

A. No. The bids as received had annual prices, and the bidder could either provide an increasing or decreasing price for each year. Some of them did that. If you look at the Oxbow one, the very bottom one, they had different prices for each year. Actually, it started low, went up, and came back down.

Q. If Progress pursued a contract for one of

these bids, would the contract likely have a price escalation provision or a price reopener? I think you answered that, but let me ask it again.

A. As they were bid, no. They would have been annual prices.

Q. Okay. It's not typical for an annual price to have a reopener? Am I correct in assuming that it would be a longer-term contract that needed either an escalation or a reopener?

A. You're really getting into the way the RFPs went out. The RFPs for that coal in 2006 asked for bids that were either one year or two years or three years, all of them starting January 1, 2005, so the bids they got were based on that. If they had asked for reopener provisions, the RFP could have, should have indicated a desire to have that.

Now, it would not be unusual if you had an exceptionally good offer that in the negotiations, the actual agreement, that you would try to negotiate some kind of a continuation, a right to renew it at that price, those kind of things, to make it a better deal during the negotiations. But the RFP did not ask for reopeners.

Q. Give me just a minute more. I think I may have a couple more questions, but I've jumped around a

little bit.

A. Sure.

Q. Okay. Just a couple more questions to end with. In your years of experience, have you ever been surprised by the performance of the coal used as a fuel?

A. I guess I'm not sure what "surprise" would mean. I've been pleasantly pleased. Burning the Powder River Basin coal at Scherer and Miller was a pleasant surprise. It was our expectation that -- it was not our expectation that we could go to 100 percent with that coal at those plants. They were not designed to burn Powder River Basin coal. So, I mean, if you call that a surprise, I was definitely pleasantly pleased with that.

Q. Pleasantly surprised by PRB. What about a new coal that was similar to what you had been using that was not a pleasant surprise? Have you had any experience with unpleasant surprises?

A. I guess in honesty, probably not. From a specifications standpoint, I've had unpleasant surprises from particular suppliers not doing what they said they were going to do or not providing the coal they said they were going to provide, but not based on the specifications, not acting like I expected them to act in the boiler.

Q. Those unpleasant surprises that you had from

suppliers, how do you deal with -- when you go back out to bid, how do you deal with those kinds of happenings? Is that something that becomes widely known in the community, and that supplier is not used again?

A. Our main approach was that we had mining engineers and technical people, and we would send them out to visit mines. We would send them out to look at suppliers, both before we contracted with them and then during the time we were buying coal from them. So if we got stuff we weren't expecting to get, we would send our guys out to find out why.

And, yes, if we found out that they really could not do -- that their mine did not have the capability of producing the kind of coal they said they were going to provide, then we would not use them again. And like everybody, if we found that particular suppliers had a bad reputation, we would avoid them.

Q. You said Scherer used the PT Adaro coal. What about -- did I understand that TECO also has used PT Adaro?

A. The 423 data indicates that TECO bought coal from Indonesia on several occasions, over several years, over several years.

Q. Do you know how many years' experience they've had, TECO?

A. Here is one set of FERC data that shows that they were buying the coal from '96 to '99. That's not a exact copy off the FERC data, but . . .

Q. Do you know if they're still using Indonesian coal?

A. I think looking at some more recent FERC data, they did not appear to be.

Q. Do you know what TECO's experience was with Indonesian coal?

A. Only that they burned it for quite a while, so that indicates that they were satisfied with it.

Q. When you say quite a while, '96 to '99?

A. (Gesturing.)

MS. BENNETT: I think that's all the questions I have. Thank you, Mr. Putman.

THE WITNESS: Thank you.

MR. BURNETT: Joe, before you start your redirect, I have one issue based off what Lisa raised. I think it will be two or three questions.

MR. McGLOTGHLIN: All right.

REDIRECT EXAMINATION

BY MR. BURNETT:

Q. Mr. Putman, in the very first set of questions that Ms. Bennett asked you, she was asking you about the PSC's cost-effectiveness method. In one of your

responses when you were describing it, I wrote down that you said, quote, it's based on tons, not Btus. Did I write that down correctly?

A. Correct.

Q. What exactly do you mean by that?

A. The question of blending, what do you blend by? If you're talking about a 80-20 blend, what does that mean? And my interpretation -- and I think it's pretty clear in the order, or I think it is -- is that that was to be a by weight blend, that you would put 20 percent of the tons and 80 percent of the tons.

Q. So is it your position that the Commission in the last case only cared about the amount of weight of coal coming in and not the Btu values that that coal would have?

A. That was the end result of their order.

Q. Would that imply then that the Commission had no concern whether Crystal River 4 and 5 actually got the Btus it needed to generate power, that they were just concerned that it got certain tons?

A. I would not say that. I'm sure they want the right number of Btus to meet the generation needs. But in calculating a blending opportunity, that's what they used. So if you wanted the Btus that you needed in your little math, yes, they will have to make up those Btus

from other sources.

Q. So you're not suggesting at all that the Florida Public Service Commission has ever said that it would be prudent or wise for the company to ignore the Btus it needs and just make sure it had a certain amount of tons arriving; correct?

A. No, I definitely did not say that.

Q. Well, my question was, you don't think it would be fair to even infer from this order that the Commission would ever take that position; right?

A. Well, they were just saying that the blending that was done at the plant, the test burn they did, 18 percent, was a by weight blend, and so that's what they were saying was an acceptable number for safe burning of Powder River Basin coal, was a 20 percent blend.

Now, they said it had to be blended off-site. They didn't say it all had to be waterborne. The waterborne part is a practical piece, because it would be very difficult to blend the rail coal that's coming into the plant, because you would have to move the Powder River Basin coal to some point that intersected with that coal coming from -- that would be moving by rail, and my view is that you could not do that economically to blend the rail coal with Powder River

Basin coal. Now, if you could find a way to do that, then you could move additional Powder River Basin coal into the plant by blending with the rail.

Q. Are you familiar with page 51 of the Commission's Order in the last case, Attachment A, page 1 of 1?

A. Okay. Was it two pages?

Q. Right. Page 1 of 2, page 51.

A. Okay.

Q. There I see under Column B as in Bravo and C as in Charlie, the Commission seems to be considering dollars per MMBtu. Am I correct there?

A. That's what those numbers are, yes.

Q. Isn't the Commission then in fact considering Btus there?

A. I wouldn't make that inference. They were considering dollars per million Btu.

Q. Right. Well, they were considering the dollars because we have to buy the MMBtus; right?

A. Well, I'm not sure of the framing of that question.

Q. Okay. Well, my assertion would be that the Commission is considering the cost of MMBtus because it's acknowledging that to make Crystal River 4 and 5 work, we need to put MMBtus in it, and they're concerned

about what the price of those MMBtus are. Would that be fair?

A. Well, when I look at this chart, I focus on the maximum PRB tons, which are 20 percent by ton of the number that Progress Energy said they could unload at the plant, which is 2.4 million tons. So they used 2.4 million tons that could be unloaded at the plant, and 20 percent of that is 480,000 tons, and so they said that was the maximum PRB coal you could move.

And then you apply a cost for those tons, in this case, a differential in cost between PRB cents per million and their CAPP price, and they said that was the money you could save, but all you could save it on is 480,000 tons, which is a result of a by weight blend.

Q. But like we talked about earlier when I was asking you questions, you, I think, acknowledged that the Commission in its order said that Crystal River 4 and 5's operation was important and that they needed a certain Btu value to run, and I believe you said full operational load.

A. That's correct. They've got to have that number of Btus at the plant. And they're saying that the only Btus that can come from a blending operation is a 20 percent by weight blend.

MR. BURNETT: Okay. Thanks.

MR. McGLOTGHLIN: We don't need to take a lunch break, but I would like to have six or seven minutes to go over my notes before I begin my questioning.

(Short recess.)

CROSS-EXAMINATION

BY MR. McGLOTGHLIN:

Q. First of all, Mr. Putman, with respect to the exhibit that traces through your calculation of the amount to be refunded, there were some questions from both staff and Mr. Burnett referring to price per MMBtu on the one hand and tons by weight on the other. And in your testimony, you said that your objective was to extend the parameters of the order in the prior case to the different time frame. Did that objective include emulating the Commission's refund calculation methodology?

A. Yes, it did.

Q. With respect to the Commission's refund calculation methodology as articulated in the final order in the prior case, did the Commission employ the percentage of tons by weight approach, or did it make any attempt to equalize Btus in the process?

A. It was based on the by weight blend.

Q. And what approach did you use when you

calculated the refund?

A. The by weight blend.

Q. Staff counsel asked you some questions about some pages from a FERC report, and you indicated in one of your answers that one important factor is the date of the contract from which those values flowed. Is that information, the date of the contract that is the source of a particular delivery in '06, '07, available in the reports that she made exhibits?

A. It indicates the termination date, but not the start date.

Q. In your experience, will prices from even the same source vary materially, depending upon the point in time at which a particular contract is entered?

A. Yes, it would.

Q. Staff counsel asked you a question regarding whether Crystal River Units 4 and 5 are designed to burn all sub-bituminous coals, and in your answer, you described the four ranks of coals and how sub-bituminous coal is a rank that is defined in terms of carbon content and moisture content. Do you remember that question and answer?

A. Yes.

Q. With respect to similarities or differences between the Indonesian coal that was offered to Progress

Energy for delivery in 2007 and typical Powder River Basin sub-bituminous coals, have you had a chance to compare the more detailed specifications of those coals that go beyond moisture content and carbon content?

A. I did.

Q. And tell us whether, in your view, the coals were similar or different.

A. They were basically similar, but there were some differences in the other characteristics, the other stuff that's in the coal besides the carbon and the moisture.

Again, the real advantage of the Indonesian coal and why the Indonesian coal did so well in the evaluation process that caused the evaluated price and the evaluated cost of those coals to go down significantly was the extremely low ash content of that coal. Where Powder River Basin coal would be more than 8 percent ash, the coal delivered from Indonesia from one mine was less than a percent ash, and the other one was just over a percent. That's a very significant change, because it means that all the bad stuff, the chemicals that can show up in coal are generally in the ash.

And so if you don't have things like silicon and calcium and some of these other things that show up

in the ash, then you don't have those kind of problems burning that coal in the boiler, plus you just don't have that dirt, that ash that you have to collect in the precipitators and you have to remove from the precipitators and you have to take out and store somewhere. You don't have all those costs of dealing with the dirt, the non-burning part, the ash of the coal. So that's significant.

And then the extremely low sulfur means that the emissions out of the plant are extremely down, creating both an environmental benefit and a cost benefit, because you don't have to compensate for those with sulfur credits that you have to pay for. So the differences in those coals were all to the good. The basic coal is still sub-bituminous, but you have less bad stuff in there too.

Q. With respect to the Btu content of the Indonesian coals relative to Powder River Basin sub-bituminous coals, how would you compare those?

A. Well, again, as I pointed out, the range of coal in the Powder River Basin is normally around 8,800, 8,200 to 8,500, and some of them are even higher than that. But the Indonesian coal, one of them was 9,300 on the high end. The other one had a typical of 8,700, again on the higher end of those coals. So those were

coals that provided the plant with more of the Btus that they needed, even on a weighted 20 percent blend.

Q. One of the characteristics that you identified as common to both Indonesian sub-bituminous coal and Powder River Basin sub-bituminous coal was moisture content. What is the relevance of moisture content to the manner in which sub-bituminous coal behaves?

A. Two pieces of that. One of them is that because moisture is in the coal instead of carbon, moisture is what brings down the Btus. So when you put the coal into the boiler, you have to expend some energy to boil off the water and extract it from the process, so there's some energy wasted there.

The other piece that makes sub-bituminous coal a product that you have to deal carefully with is the moisture. Sub-bituminous coal, as we talked about before, has a tendency to self-combust, and that is driven by the moisture content.

The way spontaneous combustion occurs is that you'll have coal in a not compacted state where oxygen can get to it, and that coal begins to rust, to oxidize along with the oxygen it's being exposed to. That begins to raise the temperature, and if that is in a semi-confined state, then that temperature continues to increase, and it will eventually -- it will pretty

quickly get above the boiling point and again to boil off the water in the coal. That releases more oxygen, which then becomes available to oxidize quicker and to a higher temperature level.

And once that process begins, if there's enough room around it, the temperature will go up to a point where the carbon reaches a point where it will ignite, and then you will have spontaneous combustion. It's called spontaneous combustion, but it's actually a quick fire. The fire starts, and it burns, the carbon burns, and then you get into all the spontaneous combustion. If you have that in a confined area and you get enough of that quick combustion, then you can actually have an explosion that will occur.

So it's very important, and we've said this many times, that you carefully, very carefully control the cleanliness of the area so that you don't build up quantities of the powder which can then burn. And you also have to make sure that large stockpiles, that you compact that to try to drive out the opportunity for that oxygen to get that process started.

Is that more than you wanted to hear?

MR. BURNETT: Not me.

BY MR. McGLOTGHLIN:

Q. That leads to my next question. You said that

moisture content is the property or characteristic of sub-bituminous coal that gives rise to that possibility. Have you had an occasion to compare the percentage moisture content of Indonesian coal with the typical moisture content of sub-bituminous coal from the Powder River Basin?

A. They're very similar, and that's why they're both sub-bituminous coal.

Q. And how does one control or mitigate that tendency of sub-bituminous coal in the handling and the storage of it?

A. In large volumes, you compact it in stockpiles. You compact it. And where you're moving coal by conveyor belts, you clean it up and make sure you do not allow the dusty nature of the coal, allow the coal to collect on girders, on the floor and other places where it is not compacted, where it's loose, and you can have that oxygen begin to build up. You've just got to keep the plant extremely clean.

Q. You've said that the moisture content of the Indonesian coal offered to Progress was very similar to the moisture content of the typical PRB coal. Does it follow that the control measures that would be adequate to handle PRB coal safely would apply and be sufficient for the Indonesian coal?

A. Yes.

Q. Now, you've described this tendency of sub-bituminous coal to combust absent proper handling. You are speaking there of 100 percent pure sub-bituminous coal, are you not, of the stockpiles, of pure sub-bituminous coal being fed to the boiler?

A. I guess I'm not sure what the question is.

Q. Well, is there a similar --

A. You can have a combination of a blended coal where if you had enough sub-bituminous coal in a loose enough compaction, it would not only light the carbon in the sub-bituminous coal, but could create enough heat to light the bituminous coal that was adjacent to it. So you could have a combustion of that coal too.

Q. Would the blending of 20 percent sub-bituminous coal with 80 percent CAPP coal diminish the potential for combustion of that nature?

A. It would reduce the risk by a similar kind of ratio, but it would not eliminate it.

Q. Okay. You said you were pleasantly pleased with your experience burning Powder River Basin coal in the Southern Company units. Is that with respect to the ability of the units to accommodate PRB coal, 100 percent PRB coal, or does it extend beyond just the ability to generate with it?

A. It was both. We started with Plant Scherer. The railroads really came to us and said, "You ought to be trying this coal. It's selling all over the country." So we began to look at and experiment with the idea of burning Powder River Basin coal at Plant Scherer. So we went through this very detailed process laying out a plan to test it.

And as we tested it at Scherer, the plant personnel became very excited about this new coal, that when you burn it and you look inside the boiler, it's like burning natural gas. It just burns much quicker and cleaner than what they were used to. And so they worked it on up to 100 percent capability in a unit in their testing of the plant.

Plant Miller quickly said, "Man, if they can do that, we can do that." They wanted to begin burning that coal and really got very aggressive in making us get the coal to them.

But, yes, it burned well. It burned cleanly. It burned easily, controllably, and they got full generation out of the units and even more than full generation out of the units. So everybody was excited about that coal. We were expecting it to be maybe something you would use in a blend. It very quickly became obvious they could get full generation out of it.

Q. You described the full generation aspects. What about the ability to use the coal safely over time? Do you have any information that would shed light on that experience?

A. Well, Plant Miller is a great example. Again, I know more about Plant Miller than I do about Plant Scherer. One of the measures of that is that recently Plant Miller received what's called the ultimate safety award from the State of Alabama for running that plant, which is a large, four-unit plant with about 350 employees. They went for 10 years without a lost time accident, and they received an award for that, which is significant. Plants of that size have never done that before within the Southern Company. So they're able to burn it safely.

Another thing is their capacity factor. Capacity factor is a measure of the amount of generation that they produce in a period, a year, a month, versus what could be produced at absolute 100 percent, running all the time. And their capacity factor over the year in 2006 and 2007, they were in the 85 percent plus range, which means that 85 percent of the total generation that's capable out of that plant, running every minute at full load, they got 85 percent of it, and reducing that because of just demand on the system.

And looking at Crystal River, they don't stay on-line 100 percent of the time, and their capacity factors are down more in the 75 percent range, so they're not being called on or not performing.

Another measure that Plant Miller is very proud of is what's called the peak season effective forced outage rate. Peak season in the summertime when the demand is the highest and the units have to be available, they set a standard of no more than 2 percent of that time they would not be able to meet what's demanded of them. But their actual performance for 2006 and 2007 was in the .5 percent range.

So when it's needed, when those plants are needed, burning Powder River Basin coal, they're safe, they don't have explosions, they don't get people hurt, and they meet all the demand that's put on them. Plant Miller is the lowest cost coal-fired plant in the Southern system, so it is the one that's called on first and most.

Q. In response to a question from staff counsel, you said that there could be real advantages to a long-term contract for the supply of Indonesian sub-bituminous coal. Could you explain what you meant when you referred to some of the advantages of such a relationship?

A. Well, I think that coal is an amazing coal, low ash, low sulfur, has lots of advantages. And once you set the plant up to burn sub-bituminous coal, which we sort of indicated the last time would not be an exorbitant amount of money, once you set it up, if you could arrange to get that coal on an ongoing basis, low cost, low Btu -- I mean low sulfur, it would be a real good base loading coal. You could give yourself an economic advantage.

And I think in Indonesia, the people would be very pleased to have a place in the United States that they had a long-term contract with. It would open lots of doors for them. So that first one in could make a good deal.

Q. Some of the questions and your answers to the questions referred to the disruption of western railroad deliveries in 2005. Would the availability of Indonesian coal offer some advantages in such a situation?

A. Yes. And that's why it got burned at Plant Scherer, Indonesian coal got burned at Plant Scherer, and apparently also at another plant, Plant Wansley in Georgia, which is not even a normal burner of Powder River Basin coal. They also burned some. But, yes.

Again, it goes back to if you're going to have

a good coal procurement program, then you need to have access to all the basins that you can have access to, all the transportation mechanisms that you can, so that you can play one against the other from an economic standpoint, but also from a reliability standpoint.

And Plant Scherer, as I said in my testimony -- not Plant Scherer, but Crystal River has some of the best opportunities in the country. They had the wisdom to build a barge unloading facility. At the same time, they have rail, so they can have barge and rail coming into that plant. Because they're on the water, they can go to all the basins around the world, as well as Powder River Basin, as well as Central Appalachia, up and down the river, the Illinois Basin. All the coal in the U.S. is available to them. All the coal really around the world is available to them, and they need to be using those opportunities much greater than they are, in my opinion.

Q. In one of your answers to staff counsel, you referred to the fact that the Commission employed a 20 percent-80 percent ratio in calculating a refund, and then there was a conversation about how to identify the limits of the unit with respect to its ability to burn a blend including sub-bituminous coal. What has Progress Energy done in that regard to this point?

A. Well, the history is that they had a test burn in 2006 of 3,000 tons of coal, not much coal. It's my understanding it may have been four days worth of a test. They only got up to an 18 percent blend when they did that. They obviously did not challenge the unit. They were not in a position to challenge it much with 3,000 tons of coal. So it would appear that they have not really laid out a long-range test, and they have not tested it since.

They've been offered -- when they went and got their construction permit and the right to burn sub-bituminous coal at all, they asked to be able to burn a 50 percent blend. The Environmental Department would not give them long-term permission to burn 50 percent. They said they could burn a 20 percent blend, but they encouraged them to run tests to find out what the unit could burn and see if they could get up to a 50 percent blend, and they would consider granting them a permit to burn a 50 percent blend. To my knowledge, they have not done anything to move forward in that direction. So they do not appear to be pursuing the blending capability.

Q. Mr. Burnett asked you whether capital additions costing more than a million dollars have been made to Plant Scherer. Can you describe for us the

modifications and additions, if any, that were necessary to enable Southern to burn Powder River Basin coal at Scherer?

A. Well, there were some pretty good expensive things because of the desire to be able to burn so much coal. They had a large plant, so they did a lot of work in the coal handling area. One of the things that you want to do is, if you're moving coal on a conveyor belt, you've got to keep it clean along the way, and you've also got to have some fire control.

One of the biggest issues is where two conveyor belts transfer coal. If it's going this way and then you want it to go that way, the coal dumps from one conveyor belt onto another conveyor belt. The nature of this coal is that it's pretty dusty. So one thing they did do is, they built sheds, small rooms around those transfer points and put them under negative pressure, meaning they had fans pulling the dust out of the building into a bag collection system, sort of like a vacuum cleaner pulling the dust out so that it would not collect in the buildings as quickly. So there was some cost involved with that.

You had to put in some additional soot blowers in order to handle the build-up of ash in the boiler. There were some expenses, but they were quickly overrun

by the cost savings of the coal, if that's what you mean.

Q. Mr. Burnett asked you whether you had performed any independent analyses of different aspects of the operations of Crystal River 4 and 5, and you answered that you did not do any independent analysis, that you used the evaluated cost or the price that came out of the evaluation process. Would you first explain what is involved in the evaluation process that uses either the VISTA model or the predecessor that you are familiar with?

A. To use those correctly, you have to model your particular unit, and that means you need to know how different characteristics of the coal will impact boiler operation and then assign a cost to them. So once you've got your unit modeled and you know how the grind and all these other characteristics impact it, when you run through a particular set of specifications that come with a bid, then you're going to end up with a price at the end that says, here is the true cost, the total cost, including the effect on the boiler of that particular coal. And that's what becomes evaluated price of the coal, and you add to that a transportation cost in order to get a final evaluated cost delivered at the plant. But there's very unit-specific modeling

necessary.

Q. Mr. Burnett asked you some questions that related to the rail disruptions that occurred in the West in 2005, and your answer was that with respect to his hypothetical, you could make the same hypothetical disruption in the eastern part of the country. Given a risk of non-delivery from any particular source, how does a good fuel strategy mitigate that risk?

A. By having a different source and different transportation as a backup. If your rail goes out, you move more by barge. If your rail from the West goes out, you move more by rail from the East. You have a multi-legged supply system.

Q. In response to a question from Mr. Burnett relating to what he referred to as the cost-effectiveness test, you said in your answer that one would take certain capital costs into account until it became a sunk decision. Would you explain what you mean by a sunk decision?

A. Well, once you've paid for something and you've build it, then it should not drive your future decisions. For example, if you're going to build a scrubber and put it on a unit because you intend to burn one kind of coal that you need a scrubber to keep clean, and you build the scrubber and it's in place, you can't

recover that money. It is sunk. So then going forward, if the market changes and what you had expected to burn and needed the scrubber for has now become a high cost Btu, then maybe you go and buy a different coal that doesn't need the scrubber, but still you end up with the lowest cost coming out of it.

An example is, if you expect to burn Illinois Basin coal, which is a high-sulfur coal, and so you build a scrubber because Illinois Basin appears to be a very good, low-cost coal, but then the market changes after you've built your scrubber and it becomes cheaper to buy coal out of Indonesia or the Powder River Basin, you wouldn't keep buying a higher priced coal just because you've built the scrubber. You would go buy the low-cost coal even though you wouldn't need the scrubber or need the scrubber as much. You make ongoing decisions without regard to the sunk costs that you've already spent.

MR. McGLOTGHLIN: Those are all my questions.

MS. BENNETT: Nothing more from me.

MR. BURNETT: I'll transcribe and order a copy, please.

MR. McGLOTGHLIN: We will read and sign.

(Deposition concluded at 12:44 p.m.)

CERTIFICATE OF ADMINISTERING OATH

STATE OF FLORIDA:

COUNTY OF LEON:

I, MARY ALLEN NEEL, Registered Professional Reporter and Notary Public in and for the State of Florida at Large:

DO HEREBY CERTIFY that on the date and place indicated on the title page of this transcript, an oath was duly administered by me to the designated witness before testimony was taken.

DATED THIS 19th day of March, 2009.

MARY ALLEN NEEL, RPR, FPR
2894-A Remington Green Lane
Tallahassee, Florida 32308
(850) 878-2221

CERTIFICATE OF REPORTER

STATE OF FLORIDA:

COUNTY OF LEON:

I, MARY ALLEN NEEL, Registered Professional Reporter, do hereby certify that the foregoing proceedings were taken before me at the time and place therein designated; that a review of the transcript was requested; that my shorthand notes were thereafter translated under my supervision; and that the foregoing pages numbered 1 through 140 are a true and correct record of the aforesaid proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor relative or employee of such attorney or counsel, or financially interested in the foregoing action.

DATED THIS 19th day of March, 2009.

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