BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060658-EI

In the Matter of:

PETITION ON BEHALF OF CITIZENS OF THE STATE OF FLORIDA TO REQUIRE PROGRESS ENERGY FLORIDA, INC. TO REFUND CUSTOMERS $143 MILLION.
_____/

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VOLUME 4

Pages 481 through 586

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BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. MCMURRIAN
DATE:	Tuesday, April 3, 2007
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, RPR, CRR Official FPSC Reporter (850) 413-6734
APPEARANCES:	(As heretofore noted.)

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CHAIRMAN EDGAR: We will get started again. Thank you all. Mr. Burnett or Mr. Walls, your witness.

MR. WALLS: At this time we would like to call Sasha Weintraub.

SASHA A. J. WEINTRAUB

was called as a witness on behalf of Progress Energy Florida and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WALLS:

Q Mr. Weintraub, would you please introduce yourself to the Commission and provide your address.

A My name is Alexander Weintraub, also known as Sasha Weintraub. I work at 410 South Wilmington Street, Raleigh, North Carolina.

Q And who do you work for and what is your position?

A I work for Progress Energy Florida, and I'm the current Coal Director, Coal Procurement Director.

Q Have you filed prefiled direct testimony and exhibits in this proceeding?

A Yes, I have.

Q And do you have them with you?

A Yes, I do.

Q Do you have any changes to make to your prefiled

testimony and exhibits?

A No, I do not.

Q If I asked you the same questions in your prefiled testimony today, would you give the same answers that are in your prefiled testimony?

A Yes, I would.

MR. WALLS: We request at this time that the prefiled testimony of Mr. Weintraub be moved in evidence as if it was read in the record.

CHAIRMAN EDGAR: The prefiled testimony will be entered into the record as though read.

IN RE: PETITION ON BEHALF OF CITIZENS OF THE STATE OF FLORIDA TO REQUIRE PROGRESS ENERGY FLORIDA, INC. TO REFUND CUSTOMERS $143 MILLION

FPSC DOCKET NO. 060658

DIRECT TESTIMONY OF

SASHA WEINTRAUB

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Sasha A. J. Weintraub. My business address is 410 South Wilmington Street, Raleigh, North Carolina, 27601.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Carolinas, Inc. ("PEC") as the Director-Coal in the Regulated Fuels Department.

Q. What are your responsibilities in that position?

A. I am responsible for the procurement of coal for both PEC and Progress Energy Florida, Inc. ("PEF" or the "Company"). With respect to PEF, this means the four coal units located at the Crystal River Energy Complex commonly called Crystal River 1 ("CR1"), Crystal River 2 ("CR2"), Crystal River 4 ("CR4"), and Crystal River 5 ("CR5"). In 2005, PEF's contract with Progress Fuels Corporation ("PFC") for coal procurement services for the Crystal River Energy Complex ended and the

services previously provided by PFC to PEF under that contract were assumed by the Regulated Fuels Department within PEC. I am also responsible for the procurement and transportation of reagents (limestone, ammonia, and urea) for both PEC and PEF as well as commercial responsibility for the resulting coal combustion by-products.

II. PURPOSE AND SUMMARY OF DIRECT TESTIMONY

Q. What is the purpose of your testimony?

A. One purpose of my testimony is to provide the continuation of the coal procurement decisions for the Crystal River Energy Complex, in particular CR4 and CR5, in 2005 and 2006. I will explain the coal procurement solicitations and spot markets during this time period and demonstrate that the Company's decisions with respect to the coal purchased for CR4 and CR5 were reasonable and prudent under the circumstances and existing market conditions.

I will also explain the deliberate and detailed review undertaken by the Company throughout 2005 and into 2006 to determine if switching the type of coal burned at CR4 and CR5 from bituminous coals entirely to sub-bituminous coals from the Power River Basin ("PRB") or a blend of bituminous coals and PRB coals was in the best economic interests of the Company's ratepayers in the short and long term. I will further explain the current status of this review by the Company.

I will also address, in rebuttal to Mr. Sansom's testimony, a number of factual errors or misunderstandings in his testimony. This includes (1) his misunderstanding of the practical, physical limitations on the tonnage of coal delivered by water and rail to Crystal River and the implications that misunderstanding has on his analysis; (2)

his apparent view that synfuel sales to CR4 and CR5 generated substantial tax credits for Progress Energy, which is erroneous, and based apparently on his misunderstanding of the exhibits he attaches to his testimony; and (3) his erroneous view that PRB coals were widely used by utilities in the Southeast and Eastern United States from the early 1990's to the present date.

Q. Are you sponsoring any exhibits with your testimony?

A. Yes. I am sponsoring the following exhibits that I prepared or that were prepared under my supervision and control, or they represent business records prepared at or near the time of the events recorded in the records, which records it was a regular practice for me or those who worked with me to keep to perform our responsibilities:

- Exhibit No. ____ (SAW-1), which is the Company's coal procurement policy in effect when I assumed the responsibility for coal procurement for Crystal River;
- Exhibit No. ____ (SAW-2), which is the September 2005 RFP for coals for CR4 and CR5;
- Exhibit No. ____ (SAW-3), which is the bidder list for the September 2005 RFP for coals for CR4 and CR5 identifying who among the recipients of the RFP responded to it;
- Exhibit No. ____ (SAW-4), which is the Company's summary evaluation of the September 2005 RFP;
- Exhibit No. ____ (SAW-5), which is the January 2006 RFP for coals for CR4 and CR5;

- Exhibit No. ____ (SAW-6), which is a copy of the bidder list indicating those suppliers who responded with bids or simply did not respond at all to the January 2006 RFP;
- Exhibit No. ____ (SAW-7), which is a copy of the Company's coal procurement plan for the January-February 2006 RFP;
- Exhibit No. ____ (SAW-8), which is the May 24, 2005 Strategic Engineering Update Report on the use of PRB coal at Progress Energy;
- Exhibit No. ____ (SAW-9), which is the Strategic Engineering May 9, 2005 report on the Potential for PRB Coal Use at Progress Energy;
- Exhibit No. ____ (SAW-10), which is the Strategic Engineering Update Report on the Potential for PRB Coal Use at Progress Energy dated June 22, 2005;
- Exhibit No. ____ (SAW-11), which is the Strategic Engineering Update Report on the Potential for PRB Coal Use at Progress Energy dated July 14, 2005;
- Exhibit No. ____ (SAW-12), which is the Strategic Engineering Update Report on the Potential for PRB Coal Use at Progress Energy dated August 18, 2005;
- Exhibit No. ____ (SAW-13), which is the Financial Evaluation of PRB Coal Use at Progress Energy's Crystal River 4 and 5 Units Report dated August 22, 2005;
- Exhibit No. ____ (SAW-14), which is the Sargent & Lundy Powder River Basin Coal Conversion Study report for CR4 and CR5 dated October 14, 2005;

- Exhibit No. ____ (SAW-15), which is the PRB Potential at CRN (Crystal River North) Plant Update Report dated September 27, 2005;
- Exhibit No. _____ (SAW-16), which is the Crystal River 5 PRB/CAPP Blend May 2006 Test Report;
- Exhibit No. _____ (SAW-17), which is the Coal & Energy Price Report dated September 26, 2006; and
- Exhibit No. _____ (SAW-18), which is a composite exhibit of maps showing the domestic coal burning units and the types of coal they burned from 1996 to 2005.

These exhibits are true and correct.

Q. Please summarize your testimony.

A. From 2005 to 2006 (and thereafter) the Company has purchased and continues to purchase the most economical coal available under market conditions for CR4 and CR5. As our policy makes clear, however, the cheapest coal is not necessarily the best value to the Company and its customers. Rather, coals must be evaluated for purchase not only on the delivered price but also on a performance cost basis, taking into account such cost impacts as the generating station handling and operating costs, environmental costs, and cost of energy production lost or gained. That is what we have done in 2005 and 2006 and what we continue to do for CR4 and CR5.

In 2005 and 2006 we purchased the most economical coal for CR4 and CR5 under the current market conditions and consistent with the quality specifications for the coal used at the units. During this time period, despite being included in the

solicitations, only one PRB supplier responded to only one of the coal solicitations for CR4 and CR5 and that bid was not the most economical choice for CR4 and CR5.

Nevertheless, the Company has continued throughout 2005 and 2006 to evaluate the viability of switching from a bituminous compliance coal source at CR4 and CR5 to a PRB source or some blend of PRB and bituminous coal for CR4 and CR5. Such a decision is a transformation in the way the Company procures and handles coal for these units and the operation of the units. It is not a decision to make lightly and the Company has not done so. Rather, the Company has committed both internal and external engineering and financial resources to this evaluation over the course of 2005 and 2006. This has included a "high level" independent engineering report on the cost impacts of such a change and a limited test burn of a blend of PRB and bituminous coals at one of the units.

The Company is continuing its evaluation of the use of PRB and other sub bituminous coals even though the economics for PRB coals is not what it was when the Company undertook this investigation and evaluation. The Company has, however, at all times acted with reasonable and prudent deliberation to come to the best decision for the Company's customers.

III. COAL PROCUREMENT FOR CR4 AND CR5: 2005-2006

Q. When did you assume the role of making coal procurement decisions for CR4 and CR5?

A. There was a transition period in mid-to-late 2005 where I assumed responsibilities for coal procurement for the Crystal River coal plants. I first prepared, conducted, and

evaluated a request for proposals ("RFP") for coal for the Crystal River coal plants in the fall of 2005.

Q. What evaluation process did you employ in your coal procurement decisions?

A. We generally followed the prior coal procurement policies and practices for the Crystal River coal plants because they were similar to the coal procurement policies and practices we employed in the Carolinas. We first determined what coal requirements existed for the next year burns and inventory levels for the Crystal River coal plants and then we subtracted from those requirements the tons currently under contract. That provided us with the tons needed at each set of coal units, CR1 and CR2 and CR4 and CR5 respectively, for the next year.

After we had determined the open positions for purchase, we determined, based on the tons required and market conditions at the time, whether to issue a formal, competitive solicitation or pursue opportunities in the spot coal markets. If we elected to prepare a formal, competitive solicitation, we would send out an RFP for coal conforming in quality to the required coal specifications attached to the RFP for various terms. The RFP was sent to all prospective bidders on our supplier bidders' list. This list was comprised of suppliers that possessed the necessary financial, technical, and business resources to supply coal consistent with the Company's quality and quantity requirements. The response deadline was generally three to four weeks. At that time, the bid proposals were reviewed for completeness, accuracy of the data supplied, and conformity to the RFP requirements.

A similar but abbreviated process was used for spot coal purchases. On a monthly basis the Company would make known its interest in spot bid proposals

meeting the same required coal specifications used in the formal solicitations by, for example, calling coal producers on its bidder list and coal brokers. The Company also received unsolicited offers from coal producers and brokers. The bid proposals were also first reviewed for completeness, accuracy of the data supplied, and conformity to the specifications. They were then compared to the market prices through the use of various trade materials and broker sheets and, if the Company had a need for the coal, the Company would accept the offer and purchase the coal off the spot market.

The evaluations took into consideration the following factors: (1) conformity to the technical and commercial aspects of the specifications (e.g. coal specifications, delivery schedules, warranties, etc.); (2) coal quality and quantity assurances (or guarantees) by the bidder; (3) unit prices and conditions of pricing; (4) any exceptions to the specifications and resulting penalties; (5) perceived or demonstrated supplier reliability and/or capability; (6) supplier operations and/or shipping capabilities; (7) previous performance; and (8) any other considerations applicable under the circumstances.

The objective was to determine the coal supply that offered the best value to the Company for the prices quoted in the bid proposals. In this sense, the Company explicitly recognized that the lowest price may not necessarily reflect the best value to the Company and its customers.

As part of this evaluation process we employed a model that determined the optimal economic distribution of coal to each plant given constraints in coal quality, delivered price, burn requirements, inventory plan, unloading outages and constraints, and other factors. Thereafter, an economic analysis summary was prepared including

a quality baseline that evaluated the coals submitted on the basis of the differential between the bid quality and baseline specification for BTU, sulfur, ash, moisture, and grind. As a result, we produced an evaluated delivered cost per mmbtu for each coal in the formal RFP and selected the appropriate coals on the basis of this complete evaluation.

The goal was to compare the coals submitted in an RFP or spot bid proposal with each other on an "apples to apples" basis and rank them accordingly. PEF's prior coal procurement policies and practices, employing a delivered cost and evaluated (or busbar) cost analysis (called the "total cost" or "evaluated cost" in our spreadsheet analysis of the bids), achieved the same result. In fact, the model we currently use, called VISTA, is the updated Windows version of the Electric Power Research Institute ("EPRI") Coal Quality Impact Model ("CQIM") that was previously used by PFC. A copy of the Company's coal procurement policy is Exhibit No. ___ (SAW-1) to my testimony.

A. THE SEPTEMBER 2005 SOLICITATION

Q. Did the Company initiate a formal RFP for coals for CR4 and CR5 in September 2005?

A. Yes, we did. We issued two RFPs, one for CR1 and CR2 and another for CR4 and CR5, for terms of one to three years with minimum 150,000 tons meeting the required coal specifications attached to the RFPs. The reason for the September 2005 RFP was to gain market insight and to negotiate price reopeners with an existing contract supplier for both the coal for CR1 and CR2 (called "A" coal) and CR4 and CR5

(called "D" coal or compliance coal). We also wanted to see if we could meet our hedging guidelines for the 2006 to 2010 time period. Basically, our guidelines at the time sought to have under contract (through a formal RFP or spot purchase), [redacted] to [redacted] of the coal needs for the next year, [redacted] to [redacted] of the coal needs for the second year out, [redacted] to [redacted] of the coal needs for the third year out, and an ever decreasing percentage beyond that time period.

The RFP sought both domestic and import coal proposals for delivery by water barge or rail to Crystal River. Bidders were required to provide available analyses on the coal offered in the bids with both "typical" and "guaranteed" values. As the names imply, "typical" values were the quality of the coal expected on each shipment, and "guaranteed" values were the minimum quality specifications for the coal shipments below which PEF could reject the shipment. We expressly told potential bidders in the RFPs that their proposals would be evaluated not only on a delivered cost basis but also on a performance cost basis including, but not limited to, coal and ash handling impacts, generating station operating costs, and environmental compliance. Bid proposals were due October 17, 2005. A copy of the September 2005 RFP for coals for CR4 and CR5 is Exhibit No. ____ (SAW-2) to my testimony.

Q. Did the RFP for CR4 and CR5 coals include specifications for both bituminous and sub-bituminous coal?

A. Yes, it did. The required coal specifications included as received guaranteed specifications for both bituminous and sub-bituminous coals. These required coal specifications were consistent with the quality specifications historically used at CR4 and CR5.

Q. What was the response to the RFP for coal for CR4 and CR5?

A. Out of 110 RFPs sent out to the potential bidders on our bidders list, we received 20 bid proposals. Two potential suppliers declined to respond to the RFP, one RFP to a supplier was returned undelivered, and the rest simply did not respond to the RFP. A copy of the bidder list indicating those suppliers who responded with bids, declined to respond, or simply did not respond at all to the RFP is Exhibit No. ___ (SAW-3) to my testimony.

Q. Did the RFP go to PRB suppliers?

A. Yes, it did. There are a number of PRB suppliers on our bidders list who received the RFP, including Arch Coal, Inc., Kennecott Energy Company, and Triton Coal Company. The RFP or notice of the RFP was also sent to a number of coal trade publications where it was published. These publications are followed by coal suppliers and purchasers in the industry. No PRB producer provided a bid for PRB coals in response to the September 2005 RFP (only Kennecott submitted a bid and it was for Australian bituminous coal).

Q. What were the results of your evaluation of the bid proposals for CR4 and CR5?

A. There were no river coal bids received on the original solicitation, only some rail and import bituminous coals. As a result of the bid proposals we did receive, the bid from Glencore for an Australian sub-bituminous coal was the lowest delivered cost coal offered but it fell below the specifications for ash fusion so we had to reject it. We were, however, able to successfully renegotiate the price reopener under the Massey

"D" coal contract for the 2006-2008 time period at a base price of [redacted]/ton each year. This price was well within the market price for compliance bituminous coal under the bid proposals and therefore represented the most economical option for the Company and the customer. We, therefore, renewed the Massey contract but made no other compliance coal purchases as a result of the September 2005 RFP. Rather, the prudent course was to wait for a later RFP for such coals because suppliers were apparently "sitting on" compliance coal to see what was going to happen in the market. A copy of the Company's summary evaluation of the September 2005 RFP is Exhibit No. ____ (SAW-4) to my testimony.

B. THE JANUARY 2006 SOLICITATION

Q. When was the next formal solicitation for coal for CR4 and CR5 following the September 2005 RFP?

A. In January 2006 we issued another RFP solicitation for coals meeting the coal quality requirements for CR4 and CR5 with terms of one to three years. The RFP was similar to the one issued in September 2005. It contained the same coal specifications for bituminous and sub-bituminous coals and the same evaluation terms and conditions. It was sent to over 100 potential coal suppliers on the Company's bidder list, including PRB coal suppliers, and it was published in a number of well recognized coal publications in the industry. Bid proposals were due in February 2006 to this RFP. A copy of the January 2006 RFP for coals for CR4 and CR5 is Exhibit No. ____ (SAW-5) to my testimony.

Q. Why did you issue a RFP in January 2006 when you had just completed one in the fall of 2005?

A. We issued another similar RFP in January 2006 to see if compliance coal suppliers were going to release their coal under the current market conditions. As a result of the September 2005 RFP, we did not receive a large number of D coal bids, we received very few import bids, and we received no eastern bituminous bids for delivery by water. As I explained, suppliers seemed to be "sitting on" compliance coal to extract more favorable market prices. By re-entering the market with another RFP in January 2006 we expected to see more compliance coal, especially import compliance coal, available.

Q. What were your compliance coal goals for the January 2006 RFP?

A. We were targeting [redacted] tons for 2007 and just over [redacted] tons for 2008 for CR4 and CR5. Thereafter, we targeted [redacted] for 2009. Our hedging targets were just as they had been for the September 2005 RFP.

Q. What was the response to this RFP?

A. Out of the over 100 potential suppliers the RFP was sent to the Company received bids from 22 suppliers with over 100 unique proposals. This response far exceeded the response to the September 2005 RFP. The Company received only one proposal for PRB coals, however, and that was from a coal broker. None of the major PRB coal suppliers who received the RFP, such as Arch and Kennecott (by this time Arch had purchased Triton), responded with a bid proposal to the RFP. A copy of the

bidder list indicating those suppliers who responded with bids or simply did not respond at all to the January 2006 RFP is Exhibit No. ___ (SAW-6) to my testimony.

Q. What were the results of the evaluation of the January 2006 RFP?

A. For 2007, we entered into six contracts for [redacted] tons of compliance coal from both domestic and import bituminous coal suppliers at an average of [redacted]/ton cost (a range of [redacted]/ton to [redacted]/ton). Five of those suppliers also agreed to contracts for over [redacted] tons of coal in 2008 at an average of [redacted]/ton (a range of [redacted]/ton to [redacted]/ton) and two of them further contracted for the delivery of over [redacted] tons in 2009 at an average of [redacted]/ton. As a result of this solicitation, the Company met its objectives and guidelines for the RFP, provided CR4 and CR5 with quality bituminous compliance coal, and purchased the most economical coal available on the market. A copy of the Company's coal procurement plan for the January-February 2006 RFP is Exhibit No. ____ (SAW-7) to my testimony.

Q. Was the sole PRB offer in response to the January 2006 RFP a better value than the bituminous coals that the Company purchases as a result of the RFP?

A. No, it was not. But there were two Indonesian sub-bituminous coal offers that ranked ahead of the bituminous coal bids we purchased. We did not purchase the Indonesian sub-bituminous coal product because the plant had no prior experience with this type of coal, the CR4 and CR5 units were undergoing modifications to safely handle the PRB coals for a test burn as recommended by our outside engineering consultant, and the test burn of PRB sub-bituminous coals had not yet occurred.

C. SPOT PURCHASES 2005-2006

Q. Did PEF make any spot purchases of coal for CR4 and CR5 in 2005 and 2006?

A. Yes. It is typical in the industry to make spot purchases when economical to do so and we participate in the spot coal market just like most other utilities do. We routinely advise potential suppliers on our bidders list and with whom we have coal contracts that we are interested in spot purchases and we make this known to potential suppliers through the coal trade publications as well. Additionally, we have historically been very active in the spot market and this is a fact well known in the industry. As a result, we frequently receive offers for spot coal purchases on a monthly basis.

Q. Have any PRB coal suppliers made spot purchase offers to you?

A. No, they have not.

IV. THE EVALUATION OF PRB COALS FOR CR4 AND CR5

Q. During 2005, was the Company evaluating the use of PRB coals at CR4 and CR5?

A. Yes, it was.

Q. Why was this evaluation undertaken by the Company?

A. The driving force behind the Company's evaluation of PRB was to determine if potential fuel cost savings could be achieved. This objective was identified following

the PFC April 2004 RFP solicitation and April 2004 test burn of a 15% pre-blend of PRB at CR4, see Exhibit No. ___ (SAW-8), at bates number PEF-FUEL-001952 to my testimony, which is the May 24, 2005 Strategic Engineering Update Report on the use of PRB coal at Progress Energy. Strategic Engineering was directed by Senior Management to undertake this study on behalf of the Company in early 2005. Management had also expressed an interest in determining if potential fuel cost savings might be achieved from switching fuels to PRB or PRB blends based on industry observations.

Q. Why was there a delay until 2005 before this study was undertaken by the Company?

A. The Company experienced the most active and destructive hurricane season in its history in the late summer and early fall of 2004. As a result, coal deliveries as well as other fuel deliveries were disrupted and delayed and inventories were being depleted. By October of 2004, the coal inventory for CR4 and CR5 was at 13 days. Typical inventory targets are 35 to 50 days of inventory. The emphasis in this time period was to ensure there was enough coal delivered to CR4 and CR5 to burn at the Crystal River plants. After the storms, the Company also turned to ensuring that inventory levels were again restored to pre-hurricane levels. Once this period was past the Company, it was able to focus on strategic decisions such as the determination regarding the use of PRB coals at CR4 and CR5.

Q. What potential options are being considered by the Company with respect to the use of PRB coals at CR4 and CR5?

A. The Company is considering two fuel switch options. The first is a blend of PRB coals with bituminous coals, typically somewhere between 10% and 25%. The second is a 100% switch to PRB coals. The 100% switch to PRB coals is unlikely given the geographic location of the Crystal River plants from the PRB mines. There are significant concerns with maintaining a stable, reliable delivery source for the coal units if the Company is exclusively dependent on coal shipments from mines located well over 2,000 miles away from Crystal River.

Q. Is the decision to switch the type of coals burned at coal units a decision that should be made lightly?

A. No, it is not. A decision to switch the type and quality of coal to be burned at a coal plant is a "sea change" decision from both a procurement and operational perspective. PRB coals are classified as sub-bituminous coals and are noticeably different in physical and chemical properties from the bituminous coals currently burned at CR4 and CR5. The Company recognized that these physical and chemical differences in PRB coals can pose serious safety and performance issues, See Exhibit No. ___ (SAW-9), to my testimony, which is the Strategic Engineering May 9, 2005 report on the Potential for PRB Coal Use at Progress Energy. That is not to say that PRB coals cannot be burned at the CR4 and CR5 units because they certainly can. (But there is a risk and cost to making the switch to PRB coals even in a PRB blend that must be carefully considered. Before one can conclude that burning a PRB blend with bituminous coal at CR4 and CR5 is the best overall value to the Company and its customers, there are a number of issues that must be considered.)

An important consideration is whether the difference in the projected, future coal costs for both the coal type currently being used (bituminous coals) and the type of coal contemplated for use (PRB blends) continues to be significant enough to warrant the change. Other important considerations in the analysis of a PRB coal switch include safety, electrical, performance, emissions, and permitting considerations. All of these issues had to be addressed by the Company before any determination could be made. Some of these issues, as preliminary identified by the Company in the safety, electrical, performance, emissions, and permitting areas, are described in the May 9, 2005 Strategic Engineering Report on the Potential for PRB Coal Use at Progress Energy in Exhibit No. ____ (SAW-9) and the May 24, 2005 Strategic Engineering Update Report on the use of PRB coals in Exhibit No. ___ (SAW-8) to my testimony.

Q. What steps did the Company undertake to evaluate the use of PRB coals at CR4 and CR5?

A. The Company began with its own Strategic Engineering department identifying the issues that must be considered in using PRB coals at CR4 and CR5. Strategic Engineering researched the issues, gathered industry data, and further researched and gathered data from internal employees who were able to provide expertise in certain areas such as safety, performance, and environmental.

Strategic Engineering further identified the need to proceed with a study of the requirements to convert CR4 and CR5 to PRB use and the engineering firm of Sargent & Lundy was retained to provide a "high level" evaluation for safety and performance. This involved a site visit, an engineering assessment, and a report with

a preliminary cost estimate. As a result of this recommendation, Sargent & Lundy was retained. Please see the Strategic Engineering Update Report dated June 22, 2005 in Exhibit No. ___ (SAW-10) to my testimony.

Sargent & Lundy was asked to address the scenarios where a 20% PRB blend with bituminous coal was used, a 50% PRB blend was used, and a complete 100% PRB conversion occurred at CR4 and CR5 and to come up with a "high level" estimate of the additional capital and operation and maintenance (O&M) costs involved with each scenario. Please see the Strategic Engineering Update Reports dated July 14, 2005 and August 18, 2005 in Exhibits Nos. ___ (SAW-11) and (SAW-12) to my testimony.

In the meantime, the Company continued with its economic evaluation of the potential use of PRB coals at CR4 and CR5 as well. A Financial Evaluation of PRB Coal Use at Progress Energy's Crystal River 4 and 5 Units Report dated August 22, 2005 was prepared and is Exhibit No. ___ (SAW-13) to my testimony. This report addressed only the potential fuel cost savings from PRB use, it did not address the costs to use PRB at CR4 and CR5. The financial evaluation projected trends of declining CAPP (bituminous compliance coal) and rising PRB prices. We were similarly projecting the same trends in the Regulated Fuels Department.

As a result, any potential savings from a 100% conversion to PRB by 2007 sharply dropped in 2008 and went negative in 2009. Because any conversion to burn 100% PRB coals was estimated to typically take 22 months, a 100% conversion to PRB at CR4 and CR5 was not a logical choice. The only option that made any economic sense to review at the time was a 20% PRB pre-blend with CAPP coal delivered by water barge to CR4 and CR5 after blending at the International Marine

Terminal (IMT) in New Orleans. The recommendation at the time was to continue to review a 20-30% PRB pre-blend with river CAPP product through IMT for CR4 and CR5.

Q. Did Sargent & Lundy prepare its report?

A. Yes, the report was submitted to PEF on October 14, 2005. A copy of the report in included in Exhibit No. ___ (SAW-14) to my testimony.

Q. Was the Sargent & Lundy report intended as the final support for the capital and O&M changes they were asked to assess in order to use PRB coals at CR4 and CR5?

A. No, it was not. This was another step in the process of evaluating the use of PRB coal at CR4 and CR5 to determine at each step along the way whether further evaluation and the resulting time, effort, and expense, was warranted. The Company needed a preliminary estimate from engineers of the potential capital and O&M costs to burn various PRB blends or to convert entirely to PRB at CR4 and CR5. Sargent & Lundy understood this, in fact, the report indicates it is a "high level" assessment to assist Progress Energy with a "first cut" evaluation to determine if PRB coal will provide an economic benefit.

Q. Did this "first cut" evaluation suggest that further evaluation of the use of PRB coals at CR4 and CR5 was warranted?

A. Yes, it did, but only at the lower PRB percentage blends. Based on the Sargent & Lundy Report, and the Company's own studies and reports, the Company determined

that a 100% conversion to PRB coals at CR4 and CR5 was not justified and that a higher percentage blend (at 70%) was also not as economically practicable as the lower PRB blends. (As a result of this report (and the Company's own reports), the Company decided to request permission for a trial test burn of a 20-30% pre-blend of PRB and bituminous CAPP coal. The Company planned to conduct a test burn, analyze those findings, and proceed from there with its evaluation of the use of PRB coals at CR4 and CR5.) Please see the PRB Potential at CRN Plant Update Report dated September 27, 2005 in Exhibit No. ___ (SAW-15) to my testimony.

Q. Does Mr. Sansom rely on the Sargent & Lundy Report in his testimony?

A. Yes, he does. It is Exhibit No. ___ (RS-12A) to his testimony and he makes frequent reference to excerpts from the report in his testimony.

Q. Did the Sargent & Lundy Report address the 50/50 blend of PRB and CAPP coal that Mr. Sansom asserts in his testimony the Company should have used at CR4 and CR5?

A. Yes, it does. At page 19 of the report Sargent & Lundy addressed "Other Issues" and states: "Based on past experience it is recommended that operation at a coal blend near 50% Illinois/50% PRB coal should be avoided. Boiler control difficulties have been encountered operating at a 50/50 blend. Better boiler operation and control can be achieved when one of the two coals is predominant."

Sargent & Lundy understood that this was the design coal for the CR4 and CR5 boilers but, of course since it was the design coal before the plants were built, it was not actually used in the boilers at CR4 and CR5 at the time of that design. In

fact, the Company is now in a position to benefit from the actual experience of other utilities with similar blends and, as a result of that experience, Sargent & Lundy recommended against the use of a 50/50 blend of PRB and CAPP coal that Mr. Sansom recommends and uses in his testimony.

Q. Was a test burn of a PRB and bituminous coal blend conducted as recommended?

A. Yes, it was. On May 20, 2006 a pre-blend of 18% PRB coals and 82% CAPP coal was delivered by barge to Crystal River and burned in CR5 from May 21, 2006 to May 23, 2006. There were no substantial issues with the test burn and full load was achieved. A copy of the test burn report is at Exhibit No. ___ (SAW-16) to my testimony.

Q. Was this test burn the final step in making a decision on the use of PRB coals at CR4 and CR5?

A. No. This was a limited test burn. The report acknowledges that a longer test burn of at least several weeks in duration at both CR4 and CR5 was necessary for a thorough analysis of the long term impacts on boiler operations and fuel handling systems from the use of a PRB blended coal product. The recommendations included additional steps in the evaluation of the use of PRB coals at CR4 and CR5, including obtaining a permit modification to include sub-bituminous coal use, implementing necessary improvements to CR4 and CR5 prior to a tandem burn at CR4 and CR5, and conducting at least a several week test burn on both units of a sub-bituminous and bituminous coal blend.

Q. By the way, were fuel savings achieved on the PRB and bituminous coal blend used in the May 2006 test burn?

A. No. The blended product actually cost approximately $5,750 more than equivalent CAPP coal for the entire 15,900 tons of coal burned in the test burn.

Q. What is the current status of the Company's evaluation of the use of PRB coals at CR4 and CR5?

A. The Company's continued evaluation of the use of PRB coals at CR4 and CR5 has slowed due to changes in market conditions. As I have explained, with respect to the September 2005 and January 2006 RFPs, we either received no PRB bids at all or the one we received was not price competitive. That has proved to be the case in a subsequent RFP for coal for CR4 and CR5 as well. PRB coals now are no longer price competitive because other coal prices, including for import coals, have come down and transportation costs by rail out west where the PRB mines are located have increased dramatically. A Coal & Energy Price Report from September 26, 2006 in Exhibit No. ___ (SAW-17) to my testimony confirms this market assessment. Currently, there is no economic benefit to the Company or its customers to pursue PRB coals for a blend at CR4 and CR5, without even addressing the handling and operational issues created by burning such a blend at the site. We plan, however, to continue to pursue a revision to the environmental permit to add sub-bituminous coals and we will continue to monitor the market to be prepared for subsequent changes in the prices of PRB coals relative to bituminous coals.

V. ADDITIONAL REBUTTAL ISSUES

Q. Are there physical limitations on the delivery of coal to Crystal River?

A. Yes, there are. In particular the ability to deliver coal by barge to Crystal River, the method Mr. Sansom employs to deliver PRB coals to Crystal River in his analysis, is limited by the physical dimensions and depths of the channel and the time necessary to transport and unload coal at Crystal River, and to backhaul rock from Crystal River. The channel is approximately sixteen miles long, narrow, and shallow, at a depth of around 20-21 feet. As a result, it can accommodate only one barge in the channel at a time (although one may be at the unloading dock for coal and one may be at the loading dock for rock), and the barge can only handle about 16,000 tons on average of coal. With four barges running routes during the relevant time period, the reasonable tonnage that can be expected to be delivered by barge to Crystal River is 2.4 million tons a year (a fifth barge has been recently added but with Coast Guard maintenance requirements typically only 4 barges can be expected to be in the rotation at any one point in time during the year).

Q. What is the impact of this physical limitation on Mr. Sansom's analysis?

A. Because Mr. Sansom brings all of the PRB coals to Crystal River by barge in his analysis, and must buy more tons to obtain the same Btu content of CAPP coal to maintain the load, Mr. Sansom must displace other barge coal purchased by PEF during the relevant time period in order to bring in all the tons of PRB coals that his analysis requires. This means that in several years, Mr. Sansom is displacing the very same economical import coal he refers to in his testimony with PRB coals resulting in

higher overall prices because the import coal can only be shipped to Crystal River by barge. In other words, Mr. Sansom must buy CAPP coal by rail to replace the bituminous import coals he has displaced with the PRB coals and, therefore, he has not accounted for that higher cost in his analysis. Rather, in his analysis, he compares the average of all bituminous coals purchased for CR4 and CR5 in each year to his spot PRB purchases and this includes the economical import coals that he can no longer purchase. His analysis does not account this extra cost to the ratepayer that results from his blended bituminous and sub-bituminous PRB coals.

Q. Have you had an opportunity to review Mr. Sansom's testimony and exhibits regarding the synfuels purchased for CR4 and CR5?

A. Yes, I have.

Q. Do you agree with his testimony?

A. No, I do not. Mr. Sansom asserts that PFC and PEF purchased synfuel at CR4 and CR5 to benefit Progress Energy from the tax credits generated at the expense of the ratepayer. This is simply not true.

Synfuels were sold on the market at a discount to bituminous compliance coals and, therefore, the ratepayer benefited from the discounted price. Further, the tax credits generated from sales of synfuel to CR4 and CR5 were a miniscule amount of the total tax credits to Progress Energy because affiliates (defined as at least a majority ownership interest) cannot sell synfuel to each other. All synfuel purchased for CR4 and CR5 came from unaffiliated synfuel producers or synfuel producers in which PFC held a minority interest (ten percent). The vast majority of the synfuel tax

credits generated for Progress Energy were generated from synfuel sales to other utilities and industrial customers. No one can reasonably claim that the tax credits from the sale of synfuel to CR4 and CR5 was the sole reason for those sales when the vast majority of tax credits were earned on synfuel sales to other utilities.

To this point, the attachments Mr. Sansom includes in his testimony are left unexplained for a reason. The CVO reports he attaches to his testimony have nothing to do with the synfuel sales to CR4 and CR5. Every one of the synfuel plants listed in the CVO reports, and all of the sales and resulting tax credits claimed that are identified in those reports, were for synfuel sales to utilities other than PEF (and thus coal units other than CR4 and CR5). Likewise, the SEC reports that he attaches to his testimony but does not explain, identify only those entities in which an ownership interest was held by PFC or an affiliate of PFC. These reports do not show the majority interests held by other entities in the synfuel producers that sold synfuel to PFC for CR4 and CR5. In sum, these exhibits do not support Mr. Sansom's suggestion that tax credits on the synfuel sales influenced the coal procurement decisions for CR4 and CR5.

One additional point is worth noting regarding synfuel. After 2002, the synfuel tons sold to PEF for CR4 and CR5 has dropped off dramatically from prior synfuel sales for CR4 and CR5, falling by about two-thirds in 2003, to a little over 100,000 tons in 2004, and to only 12,481 tons in 2005 (as a carryover from the prior year). During the same time period, however, affiliated synfuel producers were producing 12.4 million tons of synfuel in 2003, 8.3 million tons of synfuel in 2004, and 10.1 million tons in 2005, and selling this synfuel in those years to other utilities and industrial customers. Synfuel was replaced at CR4 and CR5 by cheaper, import

compliance coal under the then current market conditions, typically from Venezuela and Columbia, in large part because of the transportation advantage of Crystal River for import coals over domestic coal sources. In other words, it was cheaper to bring import coals in from foreign sources across the Gulf than transport coals across the country. When PFC and PEF were displacing synfuels with these cheaper import compliance coals it obviously was not with an affiliated producer.

Q. Does Mr. Sansom suggest that PRB coals were widely used in the Eastern and Southeastern United States from the 1990's to 2005?

A. Yes.

Q. Do you agree with that suggestion?

A. No. I have included as a composite Exhibit No. ___ (SAW-18) maps that show by year from 1996 to 2005, the utilities with coal plants in the United States and the types of coal that they were burning. These maps are based on the information provided in the very same FERC data that Mr. Sansom relies on in his testimony. As you can see from the maps, while PRB coal use did grow during this time period, it was pretty much centered around the Great Lakes and rivers and rail lines in the Midwest, where transportation of PRB coals was more economically available. The use of PRB coals in the Southeast was limited to the three coal units Mr. Sansom identifies and the use of PRB coals in the East and Florida is virtually non-existent. Not everyone was switching to PRB coals or PRB blends, as Mr. Sansom wants you to believe. Rather, there were more economical coals, such as CAPP and imports, for many coal plants, including CR4 and CR5, in the Southeast and East.

Q. Do you have any other criticisms of Mr. Sansom's testimony?

A. Yes, Mr. Sansom uses TECO's FERC Form 423 for his delivery charges, but those figures do not reflect all the charges associated with the terminal or transfer costs. These charges reflect costs for the unloading and stockpiling from barge or import vessel, as well as the reclaiming and loading of the gulf barge.

Q. Please explain how TECO's terminal costs are different from the costs charged at the International Marine Terminal, the Gulf terminal utilized by PEF.

A. When moving coal through the TECO terminal, which is Electrocoal, TECO invoices, or charges, based on loadport draft survey weights as soon as reasonably practicable after the coal is finally loaded into the gulf barge. By comparison, IMT invoices its coal charges based on loadport draft survey weights when coal is first discharged by IMT. Thus IMT includes a charge for terminal or transfer.

Q. How do these different invoicing practices impact the cost of inventory at either IMT or Electrocoal?

A. The cost of inventory at IMT reflects the cost of coal delivered to IMT plus the terminal costs. The cost of inventory at Electrocoal, however, reflects only the cost of coal delivered to Electrocoal and does not include the terminal costs. Therefore, using the inventory cost for coal at Electrocoal is not an accurate way to estimate what the inventory cost is at IMT.

Q. How can you be sure that TECO does not include these terminal or transfer charges in its FERC Form 423s?

A. Currently, PEF has a three-year current contract with IMT that expires on [redacted]. In preparation for the expiration of this contract, an RFP for transloading services along the US Gulf Coast was issued on August 16, 2006. A bid was received from TECO Bulk Terminal for their services at Electrocoal. The results of that bid response show that TECO does not include these terminal or transfer charges when accounting for coal inventory at the terminal.

Q. In her testimony, Ms. Davis indicates that, based on her former experience with TECO, the transfer charges are not included in TECO's FERC Form 423s. Is this fact consistent with what you learned from TECO's recent bid for transloading services?

A. Yes, based on TECO's bid response, the terminal or transfer charges are still not included in the inventory cost for coal at the Electrocoal terminal.

VI. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

BY MR. WALLS:

Q Mr. Weintraub, do you have a summary of your prefiled testimony?

A Yes, I do.

Q Would you please summarize it for the Commission, please?

CHAIRMAN EDGAR: But first, Mr. Weintraub, were you sworn yesterday?

THE WITNESS: Yes, I was.

CHAIRMAN EDGAR: Okay.

THE WITNESS: I'm the current Director of Coal Procurement. There was a transition period where I worked for Mr. Pitcher. As a result, I followed the coal procurement practices in the coal procurements that I was responsible for in 2005 and 2006. I was responsible for two RFPs: One in September 2005 and another in January 2006. Both RFPs were sent to over 100 potential domestic and foreign bituminous and domestic and foreign sub-bituminous coal producers and brokers. We evaluated these responses to those bids and selected coals based on the lowest total cost coal for CR4 and 5.

We also regularly participate in the spot coal market for coals. We often receive unsolicited offers from coal producers and brokers and we call them from time to time. These coal brokers have access to both bituminous and sub-bituminous coal producers. We received no PRB bids in

response to the September 2005 RFP and one PRB bid in response to the January 2006 RFP, but it was not the lowest total cost bid. We have received no PRB offers on the spot market from either PRB producers or coal brokers. We have received a number of foreign bituminous compliance coal bid responses and offers and we have purchased foreign bituminous coals. Import coal represents a significant percentage of the compliance coal for CR4 and 5 today and that has been the case since 2003 and 2004.

Import coals from Colombia and Venezuela have replaced domestic synfuels and bituminous coals because they were a lower total cost coal. Synfuel sales fell almost two-thirds in 2003, then a little over 100,000 tons in 2004 to Crystal River. At the same time, affiliate PFC synfuel producers produced and sold to other utilities and industrial customers 12.4 million tons of synfuel in 2003, 8.3 million tons in 2004 and 10.1 million tons in 2005. The import coal producers that displaced synfuels in '03 to '05 were not affiliated with PFC. PFC simply bought the lowest total cost coal that was offered to it at the time.

Following the 2004 PRB test burn of CR4 the company undertook an evaluation of the potential use of PRB coals in 2005. I participated in that evaluation. This evaluation was delayed by the 2004 hurricane season.

In 2005, the company was actively considering whether

a fuel switch to PRB coals or a PRB blend would result in fuel savings and would be feasible. A decision to switch the type of coal burned at a coal unit requires the careful consideration of all the impacts that decision will have on the company beyond just the delivered price of the fuel.

The company had a long understanding of the physical and chemical differences between PRB coals and bituminous coals. PRB coals are dustier, higher in moisture content, lower in Btu content and are also more susceptible to spontaneous combustion than their bituminous coal counterparts. They also have different ash characteristics and different emission issues. These differences require the consideration of what the company needed to do to safely, economically and efficiently burn PRB coals. Our process for evaluating the use of PRB coals was taken in steps to ensure that at each point in the process the resulting time, effort and expense was further -- of further evaluation of a fuel switch was warranted. We started with a preliminary internal review by our strategic engineering department based on their experience and what industry information they were able to gather. We then hired an outside engineering firm Sargent & Lundy for a high level report on necessary changes to Crystal River to accommodate PRB blends. We also continually looked at projections of fuel costs for PRB and bituminous coals and revised our fuel savings projections as market conditions

changed. We were in the midst of this ongoing evaluation when this proceeding commenced and required us to further consider PRB use in response to what OPC filed.

I want to turn to OPC's expert analysis for a moment. OPC relies on TECO's FERC Form 423 information for the delivered prices of PRB coals. These delivered prices do not reflect terminal costs at TECO's terminal for unloading and stockpiling the river barges and then loading into the Gulf barges.

By contrast, the delivered price of coal to IMT on the FERC form includes these terminals' costs. By using the TECO FERC form data, OPC is not accurately reflecting the costs at IMT. I know this based upon a TECO bid I received in response to an RFP for Gulf terminal services. This is consistent with what Ms. Davis says was TECO's practice when she used to prepare their FERC forms.

I also wanted to say that coal plants in the southeast and on the east coast of the United States have not switched to the use of PRB coals as demonstrated by the maps based on FERC data and exhibit to my testimony. Everyone is not switching to PRB coals and PRB coal blends. Certainly coal plants in the southeast and eastern United States have continued to use CAPP, Central Appalachian and import coals. Every utility with coal burning units has to make the decision on what coal to burn based on the lowest total cost of their

specific units. This is what we do and will continue to do. Thank you.

And then just to point out on the map, if I may, I have a laser pointer, so it might be difficult, I'd just like to point out this is the Powder River Basin coal generally located in Wyoming. The Crystal River plant is that dot. And when we refer to the TECO IMT charges, TECO and IMT are terminals located just south of New Orleans, and it is those terminal charges where we're offloading from inland river barges onto the Gulf barge to bring them across the Gulf. It's those terminal charges that we do not see in TECO's FERC 423 forms. That's all.

MR. WALLS: We tender Mr. Weintraub for cross.

CHAIRMAN EDGAR: Thank you.

Mr. McGlothlin.

CROSS EXAMINATION

BY MR. McGLOTHLIN:

Q Mr. Weintraub, you are currently the Director of Coal Procurement, are you not?

A That is correct.

Q Prior to your present position were you in the marketing and trading function of Progress Fuels Corporation?

A Yes, sir. I was the Director of Coal Marketing and Trading for Progress Fuels Corporation.

Q For what period of time?

A From February of 2003 until June of 2005.

Q Turn to Page 17 of your prefiled testimony.

A Yes, sir.

Q You refer there to shipments from mines located well over 2,000 miles from Crystal River. You're talking about the Powder River Basin there, are you not?

A Yes, sir.

Q Did you do a comparison, did you compare the distance to Crystal River from the PRB mining area, for instance, with the distance from Crystal River to the area in the Appalachian states where you purchased CAPP coal?

A I'm sorry. Can you repeat the question?

Q Yes. Did you compare the distance from Crystal River to Powder River Basin on the one hand with the distance from Crystal River to the Appalachian areas where you purchase bituminous coal on the other?

A I don't recall.

Q You didn't make that comparison before making this statement in your testimony?

A I'm familiar with the distances that we currently are bringing coal from Central Appalachian down to Crystal River now. If you mean by rail -- do you mean by water?

Q By water.

A I have a general recollection with information that has been provided through this hearing.

Q And what is your general information?

A Somewhere between 1,700 to 2,000 miles.

Q Okay. Again on Page 17, Line 12, you say, "A decision to switch the type and quality of coal to be burned at a coal plant is a 'sea change' decision." Do you see that statement?

A Yes, sir.

Q If the situation is one in which the coal to be burned is the same coal that was the design fuel basis for the construction of the plants, does that strike you as a sea change?

A Well, I'd have to ask you what the design base is you're referring to.

Q I'm referring to the blend consisting of 50 percent Powder River Basin coal and 50 percent Central Appalachian coal that was the design basis for Crystal River 4 and 5.

A For the plant or for the boiler?

Q For the boiler.

A My understanding is that Crystal River 4 and 5 was, the boiler was designed for a 50/50 blend to generate electricity, about 650 megawatts. We routinely generate 770 megawatts, so it would be a sea of change if we were producing -- doing a fuel switch that would not allow us to receive those extra 120 megawatts per unit.

Q Yes. That's based on your understanding that the

original design was limited to 655; is that correct?

A That was -- that's my understanding of the design specification.

Q And so if the units are capable of generating the same level of output, with that assumption would you regard that as a sea change?

A I would generate a fuel switch from bituminous to sub-bituminous coal a sea change, yes.

Q Your answer indicated from bituminous to sub-bituminous. The question is the same blend that was the design basis for the units.

A I would consider a fuel switch a sea change. Yes, sir.

Q Okay. So would you have regarded the decision to burn bituminous coal only in a unit designed to burn the 50/50 blend a sea change?

A Can you repeat the question, please?

Q Yes. Did you regard -- would you regard a decision to burn bituminous coal only in a unit designed to operate with a blend 50/50 of Powder River Basin coal and bituminous coal to be a sea change?

A What would be the change from?

Q Well, this would be the change from the design basis.

A I don't understand. If you're burning bituminous coal, what would they be changing from?

Q Changing from the design basis assumption.

A Any fuel switch is a sea of change.

Q All right. Turn to Page 21, please. At Line 18 you quote the Sargent & Lundy report. "Based on past experience it is recommended that operation at a coal blend near 50 percent Illinois, 50 percent PRB coal should be avoided." Do you see that?

A Yes, I do.

Q And then on the next page, Page 22, you say, "Sargent & Lundy recommended against the use of a 50/50 blend of PRB and CAPP coal." But, in fact, the first statement is the correct statement, is it not? Isn't it true that Sargent & Lundy's statement referred not to the blend with CAPP coal but to the blend with Illinois Basin coal?

A I don't believe that's what Sargent & Lundy was saying if you read the rest of their paragraph from Lines 18 to 21.

I read that, "Boiler control difficulties have been encountered operating at a 50/50 blend." Not necessarily -- I read that as any 50/50 blend of coal.

Q Oh. You don't think that modifies the first sentence about a coal blend near 50 percent Illinois, 50 percent PRB coal?

A I think what Sargent & Lundy is saying is that boiler control difficulties have been encountered operating at a 50/50

blend.

BY MR. McGLOTHLIN:

Q Give me a moment.

Mr. Weintraub, turn to Page 17 again.

A Yes, sir.

Q At the top of the page you say, "The company is considering two fuel switch options." Do you see that statement?

A Yes, sir.

Q And is one of the two fuel switch options under consideration a switch to 100 percent PRB coal?

A Yes, sir.

Q Your Exhibit SAW-9, if you have that before you.

A Yes, sir.

Q Look to Page 12 of 14.

A Yes, sir.

Q Page 12 of 14 includes, among other things, notes from a May 2005 teleconference with Mr. Hatt; is that correct?

A That's correct.

Q If you'll look at the one, two, three, fourth bullet point, it reads, "If serious about PRB, suggest visiting some of the PRB Users Group plant of the year to learn best practices," and then it mentions Plant Miller in Alabama and Dominion Energy's Kincaid. Have representatives of Progress Energy Florida visited either of those plants in its, in the

evaluation of Powder River Basin coal?

A I do believe some members of Strategic Engineering have visited and are members of the PRB Users Group who put together this report.

Q And under the bullet point Keys to PRB, would you read the first of the keys that Mr. Hatt provided during that teleconference?

A Sure. Number one, ability to clean up each day, housekeeping.

Q Mr. Weintraub, were you in the room yesterday?

A Yes, sir.

Q You heard the references to the agenda for a March 2005 meeting involving New River Synfuel?

A Yes, sir.

Q Were you present at that meeting?

A Yes, sir, I was.

Q In what capacity?

A As the Director of Coal Marketing and Trading for Progress Fuels.

Q In that capacity were you familiar with the synfuel transactions?

A Yes, sir.

Q I have several questions designed to establish some of those relationships. Who is New River Synfuel, LLC?

A New River Synfuel, LLC, is a synfuel producer.

Q What percent of New River Synfuel does Progress Fuels Corporation own?

A My understanding is 10 percent is owned by an affiliate of Progress Energy. I'm not sure if it's exactly Progress Fuels.

Q All right. What about Black Hawk Synfuel, LLC, what percentage of that entity does Progress Fuels Corporation own?

A 100 percent.

Q And what about KRT?

A 100 percent.

Q Does Black Hawk or has Black Hawk -- let me try again.

Does Black Hawk buy or has Black Hawk purchased coal for New River Synfuel?

A I believe Black Hawk's purpose is an offering (phonetic) company in order to provide feedstock and sell that feedstock to New River Synfuel. They're not a synfuel producing company.

Q Are they a coal producing company?

A No, they're not. They're a legal entity.

Q So any feedstock that they supply to New River they would acquire from some other party?

A Yes, sir.

Q Is the arrangement between Black Hawk and New River Synfuel an exclusive supply agreement?

A I'm not aware if there's exclusivity in the contractual arrangement between Black Hawk and New River Synfuel.

Q Does Black Hawk purchase coal as feedstock from KRT?

A I believe that's correct.

Q Does K -- is KRT a coal producing entity?

A No, they're not.

Q So any coal that KRT sells to Black Hawk, which in turn would be, serve as feedstock, is acquired from other parties?

A That's correct.

Q Typically who does KRT purchase coal from?

A The coal market in the Central Appalachian region.

Q Does Black Hawk buy coal exclusively from KRT or is it free to purchase from others?

A Again, I'm not aware of the exclusivity between the legal obligation between Black Hawk and KRT.

Q Now the agenda that was the subject of some questions and answers yesterday referred to Infinity. Are you familiar with Infinity?

A Yes, sir, I am.

Q Did Black Hawk purchase coal from Infinity for use as feedstock?

A I believe they did.

Q What about KRT?

A I believe it was the same coal. I think it might have come from KRT to Black Hawk to New River Synfuel.

Q Okay. Does New River Synfuel ever purchase coal to use as feedstock on its own?

A No, sir.

Q If you know, how many Infinity -- how many contracts between these entities and Infinity were, existed at the time of this meeting?

A At the time of the meeting I would probably say somewhere around three to four.

Q Are you able --

A Two to three. Two to three. About that number.

Q All right. Can you identify those contracts in terms of terms and quantities?

A No, I can't, not in terms of terms and quantities.

Q What about dates, dates executed?

A I don't understand what you're referring to for dates executed.

Q When parties signed the contract.

A Which parties are you referring to?

Q Infinity on the one hand and whoever is purchasing coal from Infinity on the other.

A I'm aware of the coal that Infinity was, that KRT purchased from Infinity. I'm familiar with those terms and volume.

Q All right. Earlier you said you thought there were multiple contracts.

A Yes, sir.

Q Are you speaking now of one of those contracts?

A I'm speaking of a contract that KRT had with Infinity Coal Sales. I do think Infinity Coal Sales also had an agreement with AEP, another utility, and that New River Synfuel was buying the coal for feedstock from Infinity and selling synfuel to AEP.

Q With respect to the transaction, transactions between Black Hawk and New River in a case in which Black Hawk has acquired coal for feedstock and is supplying that to New River --

A Yes, sir.

Q -- at what point does title to the coal transfer to New River?

A My understanding is that title transfers in the hopper as it's going into the actual synfuel plant.

Q And when the synfuel plant produces the synfuel, who takes title at that point?

A When the synfuel plant produces the synfuel, it's -- the title is New River Synfuel's product.

Q And then does New River Synfuel sell that to Black Hawk or others?

A No, sir. They sell it -- well, they do not sell it

to Black Hawk. They sell it to others.

Q All right. When Black Hawk purchases coal from KRT that it intends to sell to New River Synfuel, at what point does Black Hawk acquire title to the coal?

A I believe in certain cases it's also as it's about to go into the hopper, the hopper into the synfuel machine.

Q Well, I have to ask you a couple of questions to, to clarify that for me. Let's take a situation in which KRT has purchased coal on the market and sells that coal to Black Hawk, who in turn sells it to New River Synfuel. Are you saying that Black Hawk does not take title until it arrives at the hopper of the, of the synfuel machine?

A I believe that might be the case, yes.

Q And when does title pass to New River Synfuel in that case?

A Right after it passes to Black Hawk in the hopper.

Q So at some very close point inside the hopper two, two transactions take place?

A One after the other. That's correct.

Q I believe you said that Black Hawk does not buy synfuel produced by New River. Does New River then -- let me rephrase. Typically who would be the purchaser from New River when the synfuel has been produced?

A It would be utilities and industrial customers.

Q The ultimate users?

A Yes.

Q From whom does Black Hawk purchase the synfuel that it sells to Progress Fuels Corporation for delivery to the utility? I'm speaking of Progress Energy Florida.

A I'm sorry. Can you repeat the question?

Q Yes. Well, first, does Black Hawk sell synfuel to Progress Fuels Corporation for use at Crystal River?

A Black Hawk sells synfuel as agent for New River Synfuel. Black Hawk Synfuel itself is not a synfuel entity, does not produce synfuel and cannot sell it.

Q I see. Well, who holds title to the synfuel that Black Hawk sells to Progress Fuels Corporation as New River's agent?

A New River Synfuel produces the synthetic fuel, has title to that synthetic fuel, would then sell it to a utility or industrial customer, and the title would then pass from New River Synfuel to that utility or industrial customer.

Q And Black Hawk's involvement is as New River Synfuel's agent in that transaction?

A That's correct.

Q All right. So on the one hand Black Hawk is acquiring coal to sell to New River as feedstock and then on the other end acts as New River's agent for the sales to the ultimate end-user. How does Black Hawk make money?

A I believe they earn a fee for procuring the feedstock

and for marketing the synthetic fuel.

Q A fee paid by whom?

A By the owners of New River Synfuel. By New River Synfuel.

Q There was discussion yesterday about the spread between the price paid for the feedstock and the price charged for the synfuel product, and the $4 spread was used as an example. I think it was explained later it's not necessarily limited to $4; is that correct?

A I believe that's correct.

Q Who determines what the spread is going to be in a particular transaction?

A Typically the market.

Q You mentioned certain fees that Black Hawk receives in its role as acquirer of feedstock and agent for the sale. Are there any other fees that Black Hawk receives?

A My recollection is that Black Hawk also operated a synfuel plant and received a fee for actually maintaining the equipment and operating and producing the synthetic fuel that was then sold to the utility or industrial customer. So I believe there was an operations fee as well.

Q Which synfuel production facility was involved there?

A New River Synfuel.

Q Are there any other fees that you know of that Black Hawk receives?

A Not that I'm aware of.

Q I believe you answered that Black Hawk could purchase coal from any entity that had it for sale on the market; is that correct?

A That's correct.

Q If that's the case, could there be occasions in which Black Hawk is competing with Progress Fuels Corporation in its role as procurer of coal for Progress Energy Florida?

A Not that I'm aware of.

Q Well, if both Black Hawk and Progress Fuels Corporation are searching for coal to supply to their respective uses, wouldn't there be competition for a particular source of coal?

A Well, the, the synfuel machines require feedstock and we're looking for feedstock to produce the synthetic fuel.

Q Yes. Yes.

A And we would do that on the -- in the Central Appalachian region.

Q And doesn't Progress Fuels Corporation also look for sources of coal in the Central Appalachian region to supply to Progress Energy Florida?

A I believe when they go out for bid they ask for bids from producers that are in the Central Appalachian region as well as many other regions. Correct.

Q So Black Hawk and Progress Fuels Corporation could be

operating in the same market for their respective purposes.

A Yes.

Q Did you hear the questions and answers regarding the fact that Infinity withdrew its bid to the July 3rd, 2003, RFP being conducted by Progress Fuels Corporation?

A I did hear that.

Q Do you know whether Black Hawk purchased the coal that was the subject of the bid to Progress Fuels Corporation in that RFP?

A Do I -- can you repeat the question?

Q Yes. If you know, did Black Hawk purchase the coal from Infinity that Infinity first bid into the RFP?

A No.

Q Do you know who bought the coal?

A No, I do not.

Q To your knowledge, was that coal bought by KRT or any other entity related to Progress Fuels Corporation?

A Not to my -- no, not to my knowledge.

Q On Page 23 of your prefiled testimony --

A Yes, sir.

Q -- beginning at Line 20, you state, "We plan, however, to continue to pursue a revision to the environmental permit to add sub-bituminous coals and we will continue to monitor the market to be prepared for subsequent changes in the prices of PRB coals relative to bituminous coals." Do you see

that statement?

A Yes, sir.

Q At the time you wrote this, was a revision to the environmental permit necessary to position the company to be able to respond to such changes?

A Yes, sir.

MR. McGLOTHLIN: Those are all my questions.

CHAIRMAN EDGAR: Thank you.

Mr. McWhirter.

MR. McWHIRTER: We're still doing the age before beauty deal? Okay.

CROSS EXAMINATION

BY MR. McWHIRTER:

Q Mr. Weintraub, you are an employee of the North Carolina utility?

A I'm an employee of Progress Energy. I work in the Regulated Fuels Department where I procure coal for both Progress Energy Carolinas and Progress Energy Florida.

Q On page 1 of your testimony you said, "I am employed by Progress Energy Carolinas, Inc." And that connotes to me that you're employed by the regulated utility and not the utility holding company and not the affiliated fuels corporation.

A Yes, sir. I am employed by the utility.

Q Does the fuels corporation still exist?

A I do not believe it does.

Q What happened to the fuels corporation?

A I believe it's been sold off and no longer exists, but I'm not an expert on the legal standing of Progress Fuels Corporation.

Q Well, the exhibits that came into evidence with the last witness were contracts between Progress Fuels and Progress Energy of Florida and those contracts began in November of 2004. To your knowledge, have those contracts been terminated?

A I believe they've run their course and the term of those contracts have expired.

Q The contracts didn't have a term in them or a provision for termination. Do you know how they were terminated?

A Maybe I'm confused with what contracts you're referring to.

Q I believe it's -- oh, yeah, Cross-Examination Exhibit Number 220, the PFC/PFC contract. Well, I guess -- and then there's 219, which was the contract between PFC and Progress Energy Florida.

A Yes, sir.

Q What are you answering yes to?

A That I have the documents in front of me.

Q Oh, okay. And you say that document no longer exists?

A Well, the document obviously exists. I think the term, for example, on, I believe this is Cross-Examination Exhibit Number 219, PFC/PFC Contract 11/17/04, on Page 5, Section 4.01, under Term, "The term of this agreement will commence on January 1, 2005, and will continue in effect for a period of 24 months ending on December 31st, 2006."

Q I see. So that contract has expired.

A Yes, sir.

Q And Progress Fuels Corporation has now been sold to a third party?

A I don't know the status of Progress Fuels Corporation. I think --

Q That contract had a provision against conflict of interest by employees. And you are an employee of the Carolina utility and you purchased coal for both the Carolina utility and the Florida utility. How do you deal with a situation in which you have a less expensive coal? How do you direct that coal? Do you direct it to the Florida utility or the Carolina utility?

A Well, sir, when we -- my -- when we do go out and buy coal, we issue separate RFPs to not to confuse, so we go out and offer coal for, for Florida, offer a separate RFP than we offer for Carolinas. And the majority of the coal that's bought for the Carolinas is separate from the type of coal that would be bought for, for Crystal River.

Q I see.

A They're on different railroads and have different quality specifications.

Q Does any affiliated company of Progress Energy Corporation, the holding company, still own railcars?

A I don't believe so, sir, other than the utilities themselves.

Q I see. So now at this point in time Progress Energy Florida owns railcars that transport coal to it?

A That's correct.

Q And those railcars were transferred to it from Progress Fuels when that company was sold off?

A They were transferred when the contract between Progress Energy Florida and Progress Fuels expired, which was, I believe, at the end of 2005.

Q In this test -- in this case are you providing testimony as a factual witness or an opinion witness?

A I don't know the difference between what type of witness I am, sir.

Q Well, are you offering your opinion to the Commission for things that the ordinary layman would not in his own experience have knowledge about and so you need to help them with that opinion?

A No disrespect --

CHAIRMAN EDGAR: Excuse me. Mr. McWhirter, I'm not

sure of the relevance. Could we pose questions as to the issues that are in front of us, please?

MR. McWHIRTER: Well, this witness is offering his opinion on some things but he has not been qualified as an expert to render opinion. He can testify as to factual information within his possession, but he can't be an expert to give you an opinion with respect to the decision you should reach on matters that aren't clear on the facts in and of themselves.

CHAIRMAN EDGAR: Ms. Helton.

MS. HELTON: I always worked under the impression that we accept witnesses when they come to the Commission for a proceeding as an expert witness. And I believe that in the order establishing procedure we state therein one of the requirements, and that is that if you have an issue with someone being an expert witness, then you need to let us know -- I think it's by the time of the prehearing conference, but I may not be exact on that. But the point is that, I mean, the expectation is for the parties to let us know whether they question whether someone has the ability to present testimony to you that is expert testimony, meaning that you may accept or decide not to accept the opinion offered.

CHAIRMAN EDGAR: Mr. McWhirter, do you have further questions for this witness?

MR. McWHIRTER: Yes, ma'am.

CHAIRMAN EDGAR: Thank you.

BY MR. McWHIRTER:

Q What is your educational background, sir?

A Sir, I have a BS in Engineering from Rensselaer Polytechnic Institute, I have a Master's in Mechanical Engineering from Columbia University, and I have a Ph.D. in Industrial Engineering from North Carolina State University.

Q In your summary you said that you obtained a burning opinion from, a test burn opinion that was a high level evaluation. Can you define the term "high level evaluation" for me?

A Well, we -- the term "high level" means at a level that's not necessarily getting into the details. I believe that would be the definition of high level.

Q Presently Progress Energy of Carolina has a contract with Progress Energy of Florida to do its fuel purchase operations.

A Is that a question?

Q Yes, sir.

A I believe, yes, sir, that's correct.

Q Has that contract been introduced into evidence in this case to your knowledge?

A I do not know.

MR. McWHIRTER: I have no further questions.

CHAIRMAN EDGAR: Thank you.

Mr. Twomey.

MR. TWOMEY: Just a few, Madam Chair.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Good afternoon, Mr. Weintraub.

A Good afternoon.

Q The -- I -- do you have a copy of Exhibit 213? I'd ask your counsel to --

A We're getting it.

MR. WALLS: Sorry. I don't seem to have that.

CHAIRMAN EDGAR: It's the one-page org chart; is that correct, Mr. Twomey? That's what you're looking for?

MR. TWOMEY: Yes. I only have one copy or maybe we could borrow --

CHAIRMAN EDGAR: I think staff can, can share a copy, if you'll give us just a moment. Thank you, Ms. Holley.

BY MR. TWOMEY:

Q It's not essential but I think it'll help. The -- I wanted to have this and just ask you a couple of clarifying questions, Mr. Weintraub, on helping me understand particularly the role the spread, whether it's $4, plays in this.

On the, on the Exhibit 213 the -- would you pronounce that river's name for me that starts with a K? Kanawha?

A Kanawha. That's correct.

Q Okay. Kanawha River Terminals, that's also referred

to as KRT; is that correct?

A That's correct.

Q Okay. Now am I correct in understanding that Progress Fuels Corporation owned 100 percent of KRT?

A I believe that's correct.

Q Okay. And from the testimony yesterday I believe I heard that, that KRT in turn only owned 10 percent of Black Hawk Synfuel, LLC, is that correct, or do you know?

A That's not correct.

Q Pardon?

A I believe Black Hawk Synfuel is wholly owned. I believe New River Synfuel is 10 percent.

Q I see. So KRT is 100 percent owned by Progress Fuels. Black Hawk Synfuel is 100 percent owned by KRT. And in turn, Progress Fuels and its New River Synfuel is only 10 percent owned by those corporations; right?

A To my knowledge, that's correct.

Q Who owned the other 90 percent ownership of New River Synfuel, if you know?

A I believe GE Capital at some point owned them and outside parties such as that. I believe GE Capital at some point was the owner of the other 90 percent.

Q Okay. Now would I be correct in assuming that GE Capital didn't operate the New River Synfuel?

A That's correct.

Q And because I think I heard you tell Mr. McGlothlin that -- or did I hear you say to Mr. McGlothlin that Black Hawk actually operated the synfuel operation and took a fee for it?

A Yes. I believe they were the operating company for New River Synfuel and they received a fee for that service.

Q Okay. So there was just a, some type of a hopper device some place that coal went in as, as bituminous coal and came out as synfuel; is that correct?

A That's correct.

Q And if I understood your description to Mr. McGlothlin, there were two financial and/or contractual operations, at least two that took place as the bituminous coal was entering or being operated upon in the hopper; correct?

A As it entered into the hopper. The hopper is a device that goes onto a conveyor belt.

Q Right. And there were, there were, there was one and, I guess, maybe two contractual deals that took place sequentially as the coal entered the hopper.

A That's my understanding. That's correct.

Q Okay. Now I want to clarify, did you tell Mr. McGlothlin that Black Hawk, in fact, produced no coal; correct?

A They did not produce coal.

Q Okay. But they acquired it for the benefit of New River Synfuel.

A Correct.

Q KRT did not produce coal either; is that correct?

A That is correct.

Q But it acquired it in order to transfer it to Black Hawk, which in turn transferred it to New River Synfuel; right?

A Correct. Yes.

Q Now at some point, correct me if I'm wrong, at some point in this process KRT would purchase coal from whoever, Infinity or somebody else, at a -- it was bituminous coal, correct, compliance coal?

A No, sir. It could be any type of coal.

Q Any type of coal?

A Yes, sir.

Q Any type of coal could become synfuel?

A I believe any type of coal can undergo the chemical change to be classified as synthetic fuel. Yes, sir.

Q Okay. Thank you. Now the feedstock KRT acquired from some third-party at a market price; is that correct presumably?

A Generally, yes.

Q Okay. And it sold it to Black Hawk at that same price or transferred it to Black Hawk at that same price?

A I believe to my recollection the transfer price was just the cost of the coal.

Q Okay. And what was the price to New River, the same

as the transfer price?

A I believe that's correct.

Q Okay. Now there's been testimony that, that the, if I understand it, that's what I'm trying to get from you, is that after being transformed chemically in the synfuel hopper box or whatever it is, the, it was then sold at a discount to whoever it was sold to and that discount is called a spread; is that correct?

A That's correct.

Q And that spread at times was as much as $4; correct?

A That's correct.

Q Okay. Now so there was a, there was a $4-a-ton loss, operating loss on the production of synfuel when it was sold at a $4 spread; am I correct?

A That's correct.

Q Okay. Now I assume that one can explain that kind of a business plan by relation to the tax credit; is that correct?

A That's correct.

Q So if you know, at a $4 spread how much of a tax credit would New River benefit and to whom would it go?

A Well, I don't know all the other costs that necessarily were incurred. Just the costs that we talked about today: There's the $4 spread, there's the dollar to procure the feedstock, the dollar to market the synthetic fuel, the roughly $3.25 or so to operate the equipment themselves, you

did have to pay for the chemical change agent that produced the chemical change to make a synthetic fuel, you had depreciation on your equipment, you had interest rates, you had many other things. All that was subtracted from the tax credit to then determine what was the bottom line net effect for the owner. In this case the owner would be New River Synfuel.

Q Okay. The, the -- I assume that the owners of New River Synfuel would share in the tax credit; is that a fair assumption?

A I don't know how the owners of New River Synfuel, what they did with their tax credits. That was off of their tax, their federal tax forms. I don't know what they did with it.

Q But would it be, would it be reasonable to assume that, that Progress Fuels Corporation or Progress Energy, Inc., or one of its subordinate affiliates would, as a 10 percent owner of New River Synfuel, share 10 percent of the tax credit?

A Yes, sir. We would -- New River Synfuel in this case, 10 percent of those tax credits would roll up to the legal entity, most likely on this page to Progress Fuels Corporation.

Q Right. Which was a subordinate or affiliate operation of Progress Energy, Inc.

A That's correct.

Q Okay. Now the -- and then I assume from your

discussion with Mr. McGlothlin that Black Hawk would take a -- Black Hawk actually operated the synfuel machine or device; right?

A Yes, sir.

Q Okay. So they would get a fee for that as well.

A They received a roughly $3.25 fee to operate the equipment in order to produce the synthetic fuel.

Q Okay. And so the fact that, the fact that New River didn't purchase coal on its own as opposed to having it transferred to it was because that, that, if I'm correct in understanding this, that New River, in fact, was just a paper corporation that, that, that others, Black Hawk or KRT operated; is that correct?

A No, sir.

Q Well, New River Synfuel was an actual physical corporation or operation on the ground?

A Yes, sir. They owned the machine. They owned the plant on the ground.

Q But they didn't operate it.

A No, sir. They sub, they subcontracted that out to Black Hawk Synfuel.

MR. TWOMEY: Okay. That's all. Thank you.

CHAIRMAN EDGAR: Mr. Brew.

MR. BREW: Thank you.

CROSS EXAMINATION

BY MR. BREW:

Q Mr. Weintraub, is the tax credit always available?

A I don't know what you mean by available.

Q Is the availability of the federal tax credit contingent upon the price of fuels, if you know?

A Yes, sir. I believe the tax credit is available if you meet the requirements, so, for example, the chemical change process and many other things that the tax statute requires you to do. And I do believe that based upon the price of oil there's a phase-in for the tax credit -- a phaseout, excuse me, for the tax credit.

Q So if the price of oil was low enough, the tax credit phases down?

A I believe, sir, it's the other way around. This was created back in the Jimmy Carter era and the process is if the price of oil was high enough, the oil companies would not need to have an alternative to produce a synthetic fuel, that they should be able to do that themselves with the revenues they'd be making off the price of oil. So as the oil price went up, the tax credit went down.

Q So at $60 a barrel is the tax credit phasing down?

A There is a phaseout between $50 to $70 where there's a phase. I'm not familiar what that ramp (phonetic) phase is.

MR. BREW: Okay. Thank you.

CHAIRMAN EDGAR: Ms. Bradley, no questions?

From staff?

MS. BENNETT: A few.

CROSS EXAMINATION

BY MS. BENNETT:

Q Mr. Weintraub, you have not changed Progress Energy Fuels -- Florida's coal procurement practices since Mr. Pitcher's departure, have you?

A No, sir. No, ma'am. Excuse me.

Q To your knowledge, are PEF's coal procurement policies and practices today similar to the policies and practices for the period 1996 through 2005?

A To my knowledge, yes.

Q PEF uses a master bidder list to send RFPs; is that correct?

A That is correct.

Q How many bidders are on that list?

A I counted over 110.

Q Do you have PRB suppliers on that list?

A Yes, ma'am.

Q Do you recruit mines or suppliers to be on your bidder list?

A We do not recruit anyone to be on our bidder list.

Q Can CR4 and CR5 typically operate at a load, a full load with Colombian coal that has 11,700 Btus per pound?

MR. WALLS: Lack of foundation.

BY MS. BENNETT:

Q The -- let me, let me ask a first question then.

What type of coal is currently being burned at CR4 and CR5?

A I guess I need clarification what type of coal you're referring to.

Q What Btu, MMBtu is being burned at CR4 and CR5?

A I think that Btu is from roughly eleven-seven to as high as twelve-five, twelve-eight.

Q And at eleven-seven can CR4 and CR5 typically operate at full load?

MR. WALLS: Objection, lack of foundation.

MS. BENNETT: Madam Chair, we have established that eleven-seven is the coal that is being burned at CR4 and CR5, and he can certainly answer whether or not the coal being burned, what, what capacity it generates.

CHAIRMAN EDGAR: I'll allow.

THE WITNESS: Can you repeat the question, please?

BY MS. BENNETT:

Q Sure. At 11,700 can CR4 and CR5 typically operate at a full load?

A From what I understand, eleven-seven Colombian coal can allow the plant to burn at full load; full load defined as the 700 megawatts.

Q Is that 700 megawatts, is that what you stated?

A The 750 to 760 megawatts.

Q Okay. For the 2005 RFP that you previously testified -- well, in 2005 you issued an RFP for coal; is that correct?

A That's correct.

Q For the 2005 RFP were there any PRB producers who provided a bid?

A I believe there were not.

Q Did you try to ascertain why you did not get a PRB producer to bid?

A No.

MS. BENNETT: That's all the questions I have.

CHAIRMAN EDGAR: Mr. Walls.

REDIRECT EXAMINATION

BY MR. WALLS:

Q Mr. Weintraub, how do you get people to respond to your RFPs?

A We send out a bidders list or, excuse me, we send out an RFP to people on the bidders list. And we, in addition, we also publish in coal publications the fact that we're out for an RFP to make sure that anyone that's not on it can read about it and contact us to get on the RFP bidder list and to receive even a copy of the RFP, if the, if the deadline for the RFP had not passed.

Q And how do people get on your bidder list?

A All they have to do is contact us. We have no criteria to exclude anyone from our master bidder list.

Q And, Mr. Weintraub, you were asked a number of questions by Mr. McWhirter, Mr. McGlothlin and Mr. Twomey about fees for Black Hawk, and I believe you talked about marketing, sales and operations. Do those fees cover costs?

A I believe they do cover costs.

MR. WALLS: That's all the questions I have.

CHAIRMAN EDGAR: Okay. We have Exhibits 61 through 78, I believe.

MR. WALLS: Yes, Madam Chair. We would move in exhibits to Mr. Weintraub 61 through 78.

CHAIRMAN EDGAR: Okay. Exhibits 61 through 78 will be entered.

(Exhibits 61 through 78 marked for identification and admitted into the record.)

Mr. Weintraub, you're excused. Thank you.

MR. WALLS: May Mr. Weintraub be dismissed from the proceeding?

CHAIRMAN EDGAR: He may.

MR. WALLS: Thank you.

CHAIRMAN EDGAR: And per the prehearing order, the next witness on the list, Mr. Heller, will be taken up out of order at some point tomorrow.

Do I understand that we may have an agreement to

stipulate Witness Dean?

MR. TRIPLETT: Yes, ma'am. It's my understanding that none of the parties have any questions. And if the Commissioners don't have any questions --

MR. McGLOTHLIN: That's true of OPC, yes.

CHAIRMAN EDGAR: I'm seeing nods from all of the parties, nods from staff. And, Commissioners, comfortable with that? Okay. So let's go ahead and take up the testimony and exhibits for Mr. Dean.

MR. TRIPLETT: Yes. We would ask that the prefiled testimony and Exhibits JW-1 through JW-10, which are Numbers 88 through 97, be moved into evidence as though read in the record.

CHAIRMAN EDGAR: Thank you. The --

MR. McGLOTHLIN: No objection.

CHAIRMAN EDGAR: Thank you. The prefiled testimony of Witness Dean will be entered into the record as though read, and the accompanying Exhibits 88 through 97 will also be entered into the record.

(Exhibits 88 through 97 marked for identification and admitted into the record.)

MR. TRIPLETT: Madam Chairman, may Mr. Dean be dismissed from the proceeding?

CHAIRMAN EDGAR: Yes.

MR. TRIPLETT: Thank you.

IN RE: PETITION ON BEHALF OF CITIZENS OF THE STATE OF FLORIDA TO REQUIRE PROGRESS ENERGY FLORIDA, INC. TO REFUND CUSTOMERS $143 MILLION

FPSC DOCKET NO. 060658

DIRECT TESTIMONY OF

JOHN W. DEAN

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is John W. Dean, and my business address is P.O. Box 1935, Frederick, Maryland 21702-0935.

Q. By whom are you employed and in what capacity?

A. I am the President of JD Energy, Inc.

Q. What do you do?

A. I direct JD Energy publications on various topics, including SO_2 and NOx emission allowance price forecasting and environmental policy analysis. JD Energy publishes Emission Allowance Price Forecasts (EAPFs), which provide monthly, quarterly, and annual price information and projections for both SO_2 and NOx allowances. I also participated in the publication of several Background Papers on topics such as the relationship between emission allowance and coal prices, as well on SO_2 equipment cost assumptions.

Q. What is the purpose of your testimony?

A. I will address the testimony of OPC's expert, Robert Sansom, regarding the sulfur dioxide ("SO_2") allowance savings realized by switching to a 50/50 blend of Powder River Basin ("PRB") coal with bituminous coal. Because PRB coal has less sulfur than bituminous coal, burning PRB coal can reduce the emissions of SO_2, which may reduce the number of allowance credits needed for each unit. My testimony analyzes whether, if Mr. Sansom's allegations as to what PEF should have been burning at Crystal River Units 4 and 5 ("CR4" and "CR5") are correct, Mr. Sansom has appropriately calculated the alleged SO_2 damages. My testimony will explain how Mr. Sansom, by relying on a generic and dated model, has over-estimated the SO_2 savings that burning a PRB coal blend would generate. In addition, because Mr. Sansom has not properly accounted for contract issues during 2000 and 2001 and for transportation issues during 2005, both of which would reduce the amount of PRB coal PEF could have received to burn at CR4 and CR5, my testimony will also provide the correct amount of SO_2 allowance savings that could have potentially been realized for the years 2000, 2001, and 2005.

Q. Please describe your education background and professional experience.

A. I received a Bachelors of Science degree from Georgetown University in Economics and Government in 1969. In 1975, I received a Masters degree in International Economic Relations from the University of Maryland. I have been the President of JD Energy, Inc. from December 1987 to the present. From 1982-1986, I served as Director of Coal Service, Data Resources, Inc., where I conducted major studies on various topics related to electric utilities, including the financial and energy impacts

of the passage of the acid rain legislation. I also worked in various positions from 1977-1981 at the U.S. Department of Energy (DOE), including Deputy Director (Supervisory Industrial Economist) of the Division of Coal and Alternate Fuel Regulation. While at the DOE, I supervised preparation of fuel, financial, engineering, and environmental analyses used to assess coal use in utility and industrial sectors. From 1974-1977, I was the Director (Economist) of the Industrial Division in the Office of Coal Utilization at the U.S. Federal Energy Administration (FEA). In that position I supervised a staff of sixteen people in the preparation of site-specific fuel, engineering, and environmental analyses to determine the financial and economic feasibility of coal conversion.

Q. Are you sponsoring any exhibits with your testimony?

A. Yes, I am sponsoring the following exhibits, which were created by me or under my direction.

- Exhibit No. __ (JWD-1), which is a composite exhibit of two graphs depicting the prices for SO_2 allowances for the years 1993-2005;
- Exhibit No. __ (JWD-2), which is Mr. Sansom's response to Interrogatory Number 18, showing the steps of his SO_2 damages calculations;
- Exhibit No. __ (JWD-3), which is a composite exhibit of excerpts from the voluminous Chapter of the AP-42 Manual upon which Mr. Sansom relies (the entire Chapter can be reviewed at www.epa.gov);
- Exhibit No. __ (JWD-4), which is a chart showing the corrected mathematical calculations of Mr. Sansom's SO_2 allowance damages;

- Exhibit No. __ (JWD-5), which is a composite exhibit of portions of the voluminous background document to the AP-42 Manual (the entire background document can reviewed at www.epa.gov);
- Exhibit No. __ (JWD-6), which is the Introduction to the AP-42, Volume I, Fifth Edition;
- Exhibit No. __ (JWD-7), which is a composite exhibit of portions of the voluminous related Emission Inventory Improvement Program ("EEIP") document to the AP-42 Manual (the entire EEIP document can be reviewed at www.epa.gov);
- Exhibit No. __ (JWD-8), which is a chart showing the calculation of SO_2 allowance damages without the ash savings;
- Exhibit No. __ (JWD-9), which is a chart showing the calculation of SO_2 allowance damages with the adjusted PRB tonnage amounts for 2000, 2001, and 2005;
- Exhibit No. __ (JWD-10), which is a chart showing the calculation of SO_2 allowance damages taking into account all adjustments.

All of these exhibits are true and correct.

Q. Please summarize your testimony.

A. PRB coal emits less SO_2 when burned, as compared to bituminous coal, which would reduce the number of SO_2 allowances that a company would need to use or purchase. The SO_2 allowance price market is characterized by its volatility. While prudent utilities consider the price of SO_2 allowances when making fuel decisions, no utility

would or should rely solely on price forecasts of SO_2 allowances to make major decisions.

Mr. Sansom, in calculating the alleged number of SO_2 allowances that the Company could have saved by switching to a 50/50 blend, relies on the AP-42 Manual to determine the additional SO_2 that will be retained in the ash when burning PRB coal. The AP-42 Manual, however, is too generic and unreliable to be used as a basis for calculating the amount of damages relating to a specific boiler or set of boilers. Therefore Mr. Sansom has over-estimated the alleged number of SO_2 allowances by using an unreliable source.

In addition, as testified to by Jamie Heller, Mr. Sansom does not calculate the correct amount of PRB coal that PEF could have burned at CR4 and CR5 during the years 2000, 2001, and 2005. For 2000 and 2001, due to contractual obligations for bituminous coal, PEF could not have purchased as much PRB coal. Mr. Sansom also does not correctly account for the transportation problems with the PRB coal in 2005 and therefore the amount of PRB coal that PEF could have bought that year should be reduced. The reduced PRB for these three years results in a reduction in the alleged SO_2 allowances that would have been saved.

Taking these factors into account results in a reduction of Mr. Sansom's calculated alleged SO_2 damages from $17,928,717 to $15,015,204.

II. GENERAL OVERVIEW OF SO_2 MARKET

Q. Please explain the development of the SO_2 market.

A. In 1990, amendments to the Clean Air Act ("CAA"), which included the Acid Rain Legislation or Title IV, were passed by Congress. This comprehensive legislation

provided for national regulation of SO_2 emissions from existing sources of SO_2, including existing coal-fired power plants, in an attempt to reduce SO_2 emissions. The CAA amendments introduced SO_2 reductions in two phases. Phase I was introduced in 1995, and it applied SO_2 limits to the 103 highest SO_2-emitting power plants in the country. Phase II did not begin until 2000, when virtually all units with a capacity of more than 25 MW of power were required to comply with Title IV.

A major result of the CAA amendments was the creation of a cap and trade system for SO_2 emission allowance credits. Trading under the Title IV amendments began in about 1993, just before Phase I was implemented. Pursuant to the CAA amendments, each year the Environmental Protection Agency ("EPA") allocates a certain number of SO_2 allowances for each electric power plant covered by the legislation. This number is determined based upon the plant's historical use of the unit. One allowance permits the holder of that allowance to emit one ton of SO_2. The allowances can be used, traded, or they can be banked, meaning that an allowance purchased in a particular year does not necessarily have to be used in that year but can be used in a subsequent year. To comply with the CAA amendments, the plant must provide the EPA with an adequate number of allowances to account for the number of tons of SO_2 it has emitted that particular year.

So each plant has two choices. It can take measures to reduce its SO_2 emission by, for example, installing a scrubber, which keeps almost all of the SO_2 from being emitted into the air, or by burning lower-sulfur coal. The plant could then take the SO_2 credits allocated to it by the EPA and sell them to other power plants. In the alternative, the plant could choose to not reduce its SO_2 emissions and rather purchase additional SO_2 allowances from those plants that have taken other measures

to reduce SO_2 emissions. This creates a market for SO_2 allowances. Anyone, including brokers and individuals, can buy and sell SO_2 allowances. So the market is not limited just to power plant owners and operators.

Q. How are prices for SO_2 allowances determined?

A. When the market first came about, the process for determining market prices was more difficult than it is now. At first, the market was not as transparent because of limited information provided by a few brokers and the only real tracking system for allowances was maintained by the EPA. This system, known as the Allowance Tracking System, only required companies to report allowances when they were transferred. There was, and still is, no requirement to report the sale or purchase of allowances. Today, though, there is more market transparency because: 1) a wider spectrum of organizations, which include brokers and press reports, now publish a greater array of information on trading; and 2) a higher volume of trades are occurring on a consistent basis. Market prices are determined by tracking the various reports of the number of allowances traded and the prices. Market forecasting also includes an analysis of future events, like government actions, to determine how the market is likely to change.

Q. Is the SO_2 market similar to the stock market?

A. In some ways, it is like a stock market. Allowances are traded much like stocks, and the SO_2 allowance market, like the stock market, is volatile and responds to very short-term events. However, the SO_2 allowance market is even more unpredictable in its price fluctuations than the stock market. This is due in large part to the fact that

the SO_2 allowance market is still a very thinly-traded market. One or two players can make trades on the SO_2 market and have a dramatic impact on the prices. It is impossible to predict when such individual trades will occur.

Q. Can you provide any other examples to show how the SO_2 market is volatile?

A. Yes, as another example, in 1999, the EPA issued a series of notices of violation to a large number of power companies for alleged violations of New Source Review. New Source Review is a CAA requirement that ensures that air quality is not significantly degraded from the addition of new and modified factories, industrial boilers and power plants. The violations were issued because power plants had allegedly made certain significant modifications to the plants without first obtaining a permit. Once the EPA issued these notices, the market value of allowances crashed, from approximately $200/ton down to $130/ton. The price decreased rapidly, because many companies were afraid that the EPA's crack-down on violations of New Source Review would force plants to install scrubbers, thereby eliminating the need to purchase allowances. I am not aware of any market forecasting companies that predicted this sharp dip in allowance prices preceding the news that the notices of violation would be issued.

The volatility of the SO_2 allowance market can be seen in Exhibit No. __ (JWD-1). Page 1 of this exhibit reflects a graph depicting the prices for SO_2 allowances for the years 1993-2005. This graph depicts the large, and unexpected, price jump in SO_2 prices that occurred in 2005, when prices on some days were more than $1600/ton. Even though the line on the price of SO_2 allowances up until 2004 appears relatively flat, the price for these years does fluctuate $100-$200/ton. To

more accurately reflect the volatility of the SO_2 allowance prices during these years, I have included, on page 2 of Exhibit No. __ (JWD-1), a second graph that charts prices from 1993-2003. This second graph shows that SO_2 allowance prices have always fluctuated.

Q. How have other owners of SO_2 sources reacted to this volatile market?

A. Most owners of SO_2 sources generally consider it much too risky to make major decisions based solely on the price of SO_2 allowances in the market. In fact, my company, JD Energy, regularly does forecasts of SO_2 allowance prices, and the process is extremely difficult. The price is impacted by regulatory and political factors at the local, state, regional, as well as the federal levels, that are hard to predict. Given the unpredictability, it is unwise for a utility to make decisions on coal procurement based solely on the expected prices of SO_2 allowances. While SO_2 allowance prices should certainly be a factor in the decision, the utility must take into consideration the market's volatility and risk.

III. EMISSION DIFFERENCES BETWEEN SUB-BITUMINOUS AND BITUMINOUS COALS

Q. Please explain the differences between PRB (sub-bituminous) coal, and bituminous coal, in terms of SO_2 emissions.

A. PRB, a sub-bituminous coal, generally contains a lower sulfur content than bituminous coal. On average, PRB coal, with a heating value of approximately 8800 Btu/lb., generally contains about 0.6 pounds of SO_2 per million Btu (MMBtu). Comparatively, bituminous coal contains anywhere from about 0.8 to 6.0 pounds per

MMBtu. The Central Appalachian coal in question with regards to CR Units 4 and CR5 contains about 1.0 to 1.2 pounds per MMBtu. When coal is burned in a plant, a certain amount of SO_2 is released through the stack into the air. One would expect that PRB coal would emit less SO_2 than bituminous coal, given its lower sulfur content. In addition, due to the ash and alkaline characteristics of sub-bituminous coal, burning a sub-bituminous coal will probably result in more SO_2 being captured in the coal ash than would be captured in bituminous coal ash. In other words, even less SO_2 is emitted into the air when burning sub-bituminous coal. I will refer to this as increased SO_2 ash savings.

Q. How can the reduction in SO_2 emissions that is realized when burning sub-bituminous coal be quantified?

A. The best way to calculate the difference in SO_2 emissions between burning sub-bituminous versus bituminous coal is to actually evaluate the stack emissions emitted from the actual boiler for which the reduction is to be calculated. Where an actual burn is not feasible, the calculation is relatively straightforward based on the coal's heating value and sulfur content. First the difference in average SO_2 emissions, expressed in pounds per MMBtu, of the two types of coal is calculated. This reduced value is then multiplied by the total MMBtu of coal that would be displaced by the lower SO_2-emitting coal on an annual basis at the unit. The result is the amount of reduction in SO_2 emissions for burning the sub-bituminous coal.

Q. How do you account for the increased SO_2 ash savings that are realized when burning sub-bituminous coal?

A. It is rather difficult to calculate, with any sort of precision, the increased amount of SO_2 ash savings. The amount of SO_2 ash savings realized when burning sub-bituminous coal is boiler-specific. It is difficult to use averages of other units and boilers to approximate the additional SO_2 ash savings. Short of actually measuring the decreased SO_2 emitted when actually burning sub-bituminous coal in a particular unit, there is no scientifically reasonable method to calculate the amount of SO_2 ash savings.

IV. CALCULATION OF DAMAGES

Q. Have you reviewed Mr. Sansom's calculation of the damages regarding the SO_2 allowances?

A. Yes, I have reviewed his calculations and his workpapers provided to explain his calculations.

Q. Can you explain how Mr. Sansom has calculated the damages?

A. Yes. To better explain, I have attached, as Exhibit No. __ (JWD-2), Mr. Sansom's response to Interrogatory Number 18, in which Mr. Sansom provides a chart to show the steps of his SO_2 damages calculations. First, in column 1, he provides his calculation of the average SO_2 content of coal deliveries to CR4 and CR5 according to FERC 423 data. Column 2 reflects his estimation of the SO_2 emission rate of PRB coal multiplied by 0.9. The 0.9 apparently reflects his assumption that sub-bituminous coal will result in 10% additional SO_2 ash savings, as compared to bituminous coal. By subtracting column 2 from column 1, Mr. Sansom, in column 3, provides his estimate of the savings in SO_2 emission that will result from burning sub-

bituminous coal. Next, in column 4, Mr. Sansom provides, in MMBtu, the total amount of coal shipped to CR4 and CR5 multiplied by 0.4, representing the 40% of the shipments, in Btu's, that would be PRB coal in a 50/50 PRB/bituminous tonnage mix. By multiplying column 4 and column 3, and converting to tons, Mr. Sansom determines the excess tons of SO_2, which is also the number of allowances that would have allegedly been saved by PEF. Finally, he multiplies the number of allowances (in column 5) by the average market price of the allowances (column 6), to determine the yearly damages (column 7).

Q. What method has Mr. Sansom used to support his assumption that burning PRB coal will result in a 10% SO_2 ash savings?

A. According to OPC's response to Interrogatory Number 18, Mr. Sansom uses the EPA's AP-42 manual to determine the decreased emitted sulfur when burning PRB coal as compared to burning bituminous coal. Relevant excerpts from the Chapter of the AP-42 Manual upon which Mr. Sansom relies are found in Exhibit No. __ (JWD-3). Specifically, I assume Mr. Sansom is using the generic comment provided in footnote b to Table 1-1.3 of the AP-42 Manual (page 14 of Exhibit No. __ (JWD-3)), which states that 95% of bituminous coal is emitted as SO_2, compared to sub-bituminous coal, which retains about 10% more SO_2 in the ash.

Q. What is the AP-42 Manual?

A. The AP-42 Manual is published by the EPA and attempts to estimate the emissions factors for various pollutants, including those from burning different types of coal. An emission factor is a representative value that attempts to relate the quantity of a

pollutant released into the atmosphere with an activity associated with the release of that pollutant. In other words, it is a way to estimate the amount of pollutant that will be emitted into the air while doing a certain activity. The AP-42 Manual includes emission factors for burning bituminous coal and burning sub-bituminous coal.

Q. Assuming that Mr. Sansom has properly relied upon the AP-42 Manual, has Mr. Sansom applied the AP-42 Manual methodology correctly?

A. No, Mr. Sansom makes several mathematical errors. First, he uses an incorrect percentage by relying on the general percentage difference of 10%, which is inferred from footnote b of Table 1-1.3 of the AP-42 Manual. By performing simple calculations using the data actually contained within the table itself, the actual difference in percentages of SO_2 remaining in the ash is 7.5%, not 10%. In other words, pursuant to the calculations contained in the AP-42 Manual, while a bituminous coal retains 5% of SO_2 in the ash, sub-bituminous coal retains 12.5% of the SO_2 in the ash. Mr. Sansom, by using the approximations contained in the footnote to the table, has overestimated the amount of SO_2 ash savings.

In addition, when Mr. Sansom calculates the difference between these two ash percentages, he makes a fundamental mathematical error. Rather than calculating 5% of the bituminous coal, then calculating the 15% of the ash for the portion that would be sub-bituminous coal, and then subtracting those two numbers, Mr. Sansom apparently simply subtracts the two percentages to get 10% in additional sulfur remaining in the ash. To be mathematically accurate, however, the percentages must first be applied and then the difference calculated.

Q. Have you calculated the differences the correct way?

A. Yes, I have prepared an exhibit that reflects both the correct 7.5% SO_2 ash savings figure, as well as the correct application of the percentages (i.e. first multiplying the percentages and then subtracting the two figures). In preparing these calculations, I also realized that, for the year 2002 data, Mr. Sansom made another error that reduced the number of allowances needed in that year. To be accurate, I calculated these numbers the correct way, even though that results in a higher amount of SO_2 damages for 2002. The results of these new calculations, along with the new number of allowances saved, are reflected in the attached Exhibit No. __ (JWD-4) to my testimony. To summarize the calculations, just by correcting Mr. Sansom's mathematical errors in applying the AP-42 Manual, the alleged SO_2 damages over the 2000-2005 period decrease from $17,928,717 to $16,791,995.

Q. You have commented on Mr. Sansom's application of the AP-42 Manual. Do you have any issues with Mr. Sansom relying on the AP-42 Manual at all?

A. Yes, I have several issues with Mr. Sansom using the AP-42 Manual to justify the calculation of damages. First, the manual is only a generic description of the differences between bituminous and sub-bituminous coals regarding several different emissions, including SO_2. The background document explaining the procedures for developing the AP-42 Model indicates that the emission factors generally represent a population average of facilities in the source category. The relevant portions of this background document are attached as Exhibit No. __ (JWD-5) to my testimony. In other words, the emission factors appear to be an average of a limited sampling of coal-burning facilities. The problem with reliance on an average of other facilities is

that, as explained above, the ash content that results from burning various coal types can vary greatly among plants. The SO_2 ash savings determination is a boiler-specific calculation, and it cannot be readily ascertained from an average of data from other units. Further, the Introduction to the AP-42 itself recognizes that whenever the emission factors are used "one should be aware of their limitations in accurately representing a particular facility." See page 3 of Exhibit No. __ (JWD-6). And the disclaimer section of a related Emission Inventory Improvement Program ("EEIP") document indicates that "the choice of methods to be used to estimate emissions depends on how the estimates will be used and the degree of accuracy required. Methods using site-specific data are preferred over other methods." See attached Exhibit No. __ (JWD-7).

Q. What other problems exist with Mr. Sansom's reliance on the AP-42 Manual?

A. Emissions factors are only as valid as the underlying data from which they were derived. The chapter regarding differences in emissions between bituminous and sub-bituminous coals relies on test burns conducted at a very limited number of plants. The mean average from these test burns were used to calculate the emission factors. Such a small sample size does not result in meaningful data that can be used to accurately predict how the coals will react in a particular unit. Another problem with the sample size is that there is a wide variation in the results of each of those samples. Statistically speaking, if the samples that are tested result in a wide variation of output, they will result in a high standard deviation. This means that the data are far from the mean average, and thus the mean average is not a good representation of the data sources.

For example, according to the 1993 Background Document regarding the chapter on bituminous and sub-bituminous coal, the original emission factor for bituminous coal used in a PC-fired boiler, under the 1988 version of the AP-42, was 39S (with "S" being the percent of sulfur in the coal). The 1993 revision to this chapter of the AP-42 included data from two additional PC-fired units, which were tested to measure the emissions when burning bituminous coal. One of the units resulted in a factor of 37.43, which was the average of seven different runs completed at the unit. The other unit resulted in a factor of 38.78, which was the average of three runs at the unit.

It is important to note as well that this second unit was apparently burning sub-bituminous coal, because the coal had a stated heating value of 8,104 Btu and a 0.44 percent sulfur content. But the data from this unit was used to calculate the emission factor for bituminous coal. In any event, the average of these two units gives a factor of 38.1.

The authors of the AP-42 then apparently reviewed the prior 1988 data, which had set the emission factor at 39S, and revised the emission factor to 38S, based on the results of the two additional units. The relevant portions of this document can be found at pages 9 through 16 of the attached Exhibit No. __ (JWD-5). It is unclear whether the data from the two additional units was averaged with the data used in 1988, or whether the data from the additional units simply replaced the former data. What is clear from this data, however, is that the sample size is too limited and the resulting data is too variable to produce anything more than an approximation of emission rates.

What's more, the data from which these emission factors is rather dated. The last time additional data was added to the calculations for the SO_2 emission factor of bituminous coal was 1993, when the above-described data was included in the calculation. New data from units burning sub-bituminous coal was not provided in the 1993 update, so the last time the sub-bituminous coal emission factor was updated was in 1988. Coal quality has changed significantly since that time period, particularly for sub-bituminous coal. Even Mr. Sansom, in his testimony at page 13, recognizes that a different type of PRB coal was being mined starting in the late 1980s. This difference is another significant flaw in the underlying data. Coal quality differences could potentially result in varying reactions when burned in units.

Q. Are there any other reasons reliance on the AP-42 Manual to calculate SO2 ash savings is unreliable?

A. Yes, there are also issues with the accuracy of the data used in the 1988 version of the AP-42 Manual. The 1993 Background Document explains that certain "spot checking" of the prior data was conducted. In this spot check, one of the test reports checked had a "discrepancy" in the fuel analysis procedures. This test report, done at the "ALMA" site, produced data for both bituminous and sub-bituminous coal. Correcting the data for the bituminous coal data resulted in a change from 33S to 33.7S. But the author of the document concluded that this change was not significant enough to change the emission factor background data or change the emission factor itself. Likewise, with the sub-bituminous coal data, the author concluded that "making these corrections did not effectively change the site data point." See page 9 of Exhibit No. __ (JWD-5). These errors were found in a random spot check of only

some of the data sources upon which the 1988 emission factors were calculated. Such errors call into question the accuracy of the data itself, as well as the methodology used to gather and analyze the data.

Q. If you were to calculate the SO_2 savings from burning sub-bituminous coal, would you rely on the AP-42 Manual to estimate the additional SO_2 retained in the ash?

A. No. As explained above, the AP-42 Manual is too generic and unreliable to be used as a basis for calculating the amount of damages relating to a specific boiler or set of boilers. In fact, when I advise clients as to whether to make a fuel switch, I do not include a calculation of the SO_2 savings kept in the ash. The actual amount of savings that will be experienced in each client's individual boiler can vary too much, and it would be speculative to artificially assign a percentage savings to the calculation. Mr. Sansom is attempting to use a document that is meant to be an approximation of what might occur when burning these coals in a very precise way. His reliance on this general information to support a calculation of damages is misplaced and inappropriate.

Q. Please explain how the emission factors in the AP-42 Manual are rated.

A. Each emission factor is assigned a letter ranking to judge the quality of the underlying data and how well the factor represents the emission source. An "A" rating is the best, while an "E" rating is the worst. An "A" rating indicates that the underlying data was taken from many randomly chosen sources in the industry population.

Q. What rating have the emission factors provide in Table 1-1.3 been assigned and does this rating affect your opinion as to their validity?

A. The emission factors in Table 1-1.3, upon which Mr. Sansom relies in his SO_2 ash savings calculation, do appear to have an "A" rating. This, however, does not change my opinion as to the validity of reliance on the emission factors to calculate SO_2 ash savings. As I explained above, the ash characteristics of burning various coals can vary greatly among individual boilers. While the impact of the lower sulfur content of each coal can be readily calculated, the SO_2 ash savings is too boiler-specific to be estimated, even using data from a number of other units. Furthermore, the emission factor was assigned its "A" rating at the time the emission factor was calculated. So the emission factor rating for bituminous coal was assigned in 1993, and the emission factor rating for sub-bituminous coal was assigned in 1988. Again, information this dated cannot be relied upon today for purposes of assessing damages. Indeed, the fact that so many years have passed, and much of the original background test data is no longer available, calls into question the accuracy of the emission factor rating.

Q. Are you disputing that burning sub-bituminous coal will result in more SO_2 being retained in the ash than with burning bituminous coal?

A. No, I acknowledge that an additional amount of SO_2 will likely be retained in the ash with sub-bituminous coal, as compared to bituminous coal. I cannot, however, within a reasonable degree of certainty, calculate what that percentage will be in a particular unit. In this case, Mr. Sansom is using the AP-42 Manual to prove that burning sub-bituminous coal at CR4 and CR5 will result in a specific percentage of SO_2 ash savings. Certainly, if sub-bituminous coal was burned at CR4 and CR5, I would

expect there to be some unspecified higher SO_2 ash savings than with burning bituminous coal. But because the amount of that ash savings is subject to variation based on the nuances of the CR4 and CR5 units, it is inappropriate for Mr. Sansom to tack on additional SO_2 damages based on the average data from other units. Mr. Sansom's attempt to value the SO_2 ash savings is speculative. I would characterize his calculation as "back of the envelope" and not reliable enough to support damages to a reasonable degree of certainty.

Q. Have you calculated the amount of damages, without the speculative SO_2 ash savings calculations?

A. Yes, I have re-calculated the amount of damages by eliminating the additional SO_2 ash savings. The results of my calculations are reflected in the attached Exhibit No. __ (JWD-8) to my testimony. In this chart, I did not multiply the SO_2 content of the bituminous (column 1) or sub-bituminous (column 2) coals by any ash-related reduction formula. Rather, I subtracted the two SO_2 levels directly. The remaining calculations were performed the same way as the other tables. By calculating the damages without the speculative SO_2 ash savings, the amount of SO_2 damages are reduced from Mr. Sansom's original $17,928,717 to $15,989,653.

IV. MISCELLANEOUS ISSUES AND FURTHER ADJUSTMENTS

Q. Do you have any other adjustments to make to Mr. Sansom's alleged SO_2 damages?

A. Yes, based on the calculations done by Jamie Heller for various other issues which affect the amount of PRB coal that PEF could have burned at CR4 and CR5, I have made some other adjustments to the alleged SO_2 damages.

Q. Can you please explain these adjustments?

A. Yes, for the years 2000 and 2001, Mr. Heller has adjusted the amounts of PRB coal based on existing long-term contracts under which PEF was obligated to purchase a particular tonnage of bituminous coal for delivery by barge. These contract obligations displaced part of the PRB coal that Mr. Sansom alleges should have been burned at CR4 and CR5. Mr. Heller, taking these contract constraints into account, calculates that the PRB coal, as a percentage of Btu's, would have been 33.1% for 2000 and 34% for 2001.

Q. Does Mr. Heller make any other adjustments to the amount of PRB coal?

A. Yes. On page 53 of Mr. Sansom's testimony, Mr. Sansom acknowledges that transportation issues during 2005 decreased the amount of PRB tons that plants were able to receive. As a result, the plants were forced to replace the PRB coal with coal from other sources. Accordingly, Mr. Sansom makes a 7.5% downward adjustment to the number of PRB tons PEF should have burned at CR4 and CR5.

Mr. Heller, in his testimony, points out that, while Mr. Sansom claims to have made this 7.5% adjustment for 2005, Mr. Sansom in fact does not include this reduction in his damages calculations. Accordingly, Mr. Heller has calculated that the amount of PRB coal, as a percentage of Btu's of the total coal shipped to CR4 and CR5, would be reduced from 40% to 37% for 2005.

Q. How, if at all, do the additional adjustments for 2000, 2001, and 2005, supported by Mr. Heller's testimony, affect the SO_2 damages calculations?

A. If the actual PRB coal deliveries for the years 2000, 2001, and 2005 were less than Mr. Sansom assumed in that year, then PEF would have been burning more bituminous coal in its blend at CR4 and CR5. This necessarily would increase the amount of SO_2 emissions from CR4 and CR5, which decreases the level of allowance "savings" claimed by Mr. Sansom for each of those years.

Q. Have you calculated the amount of damages based on Mr. Heller's revised PRB amounts for 2000, 2001, and 2005?

A. Yes, I have adjusted the amounts of PRB coal for each of these years based on Mr. Heller's analysis. These calculations are reflected in the attached Exhibit No. __ (JWD-9) to my testimony. By adjusting the number of PRB tons for 2000, 20001, and 2005, and taking into account Mr. Sansom's mathematical errors, the amount of alleged SO_2 damages are reduced from Mr. Sansom's original $17,928,717 to $15,771,411.

Q. So taking the mathematical errors, the removal of the ash savings, and the adjusted 2000, 2001, and 2005 supply numbers, into account, what is the final, reduced amount of alleged SO_2 damages?

A. Factoring in all these issues, as explained in detail above, the final amount of alleged SO_2 damages are reduced from Mr. Sansom's original amount of $17,928,717 to

$15,015,204, as reflected in my attached Exhibit No. __ (JWD-10). This represents a total reduction of $2,913,513 in alleged SO_2 damages.

V. CONCLUSION

Q. Does this conclude your testimony?

A. Yes, it does.

CHAIRMAN EDGAR: And the next witness on my list, Ms. Cross, was excused previously.

MR. TRIPLETT: Yes, ma'am. And we ask that her prefiled testimony and Exhibit LJC-1, hearing Number 98, be moved into the record as though read.

CHAIRMAN EDGAR: Yes. So the prefiled testimony of Witness Cross will be entered into the record as though read, and the accompanying Exhibit Number 98 will also be entered into the record.

(Exhibit 98 marked for identification and admitted into the record.)

IN RE: PETITION ON BEHALF OF CITIZENS OF THE STATE OF FLORIDA TO REQUIRE PROGRESS ENERGY FLORIDA, INC. TO REFUND CUSTOMERS $143 MILLION

FPSC DOCKET NO. 060658

DIRECT TESTIMONY OF

LORI J. CROSS

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. Lori J. Cross, P.O. Box 14042, St. Petersburg, Florida 33733.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Service Company as a Manager of Utility Regulatory Planning.

Q. What do you do?

A. I am responsible for the regulatory planning and cost recovery functions for Progress Energy Florida.

Q. What is the purpose of your testimony?

A. My testimony will address OPC's expert's, Patricia Merchant's, calculation of interest on the amount of alleged damages claimed by OPC to have been over-collected by PEF in the fuel clause over the last 10-year period. My testimony

will explain how Ms. Merchant, by assuming that PEF collected these alleged overcharges on the first day of each year, has used an incorrect methodology and has overstated the amount of interest. The appropriate methodology is to calculate interest to reflect when PEF would have received the fuel charges, on a monthly basis, rather than a lump-sum in the beginning of the year. My testimony presents the proper calculation, using the appropriate methodology for the interest calculation.

Q. Please describe your education background and professional experience.

A. I received a Bachelors of Science degree in 1980 in Accounting from the University of South Florida. I began my employment with Florida Power Corporation in 1983. During my tenure with Florida Power and Progress Energy Services Company, I have held a number of financial and accounting positions. In 2003, I became Manager, Regulatory Accounting and in 2006, I became the Manager of Utility Regulatory Planning for the Florida utility. I am also a Certified Public Accountant ("CPA").

Q. Are you sponsoring any exhibits with your testimony?

A. Yes. I am sponsoring the following exhibit that I prepared or that was prepared under my supervision and control:

- Exhibit No. ___ (LJC-1), which is a re-calculation of the interest that was originally calculated by Patricia Merchant in her (Revised) Direct Testimony filed on November 1, 2006;

This exhibit is true and correct.

Q. Please summarize your testimony.

A. I reviewed Ms. Merchant's testimony regarding the calculation of interest on Robert Sansom's alleged damages from the period 1996-2005. Ms. Merchant assumes that PEF collected the amount of alleged overcharges on the first day of each year at issue. This is an incorrect interest analysis, because PEF collects fuel charges from its customers on a monthly basis. Therefore, to calculate interest fairly, the appropriate time period to use is monthly. Ms. Merchant, by assuming that PEF had the benefit of the money at an earlier point in time, overstates the amount of interest by $1,853,303. If I assume that Mr. Sansom has accurately shown all the damages he alleges in his testimony, which I do not accept as true, the correct interest calculation would be $20,637,976.

II. ANALYSIS OF PATRICIA MERCHANT CALCULATIONS

Q. Have you reviewed the testimony of Patricia Merchant, OPC's expert, in this proceeding?

A. Yes, I have reviewed Ms. Merchant's testimony, including her exhibits and her calculation of interest.

Q. Do you have any issues with how Ms. Merchant has calculated the interest?

A. Yes, I dispute Patricia Merchant's calculation of interest in the first year of each year's alleged overpayment. Her methodology applies an entire year of interest expense on the full amount of the alleged overpayment. Since alleged overpayments would have occurred throughout the year rather than on the first day of the year, applying interest for the entire first year overstates the amount of interest expense. Then this overstated interest is carried forward in the beginning balance in each subsequent year, thereby compounding interest expense on artificially inflated balances.

Q. Please explain your proposed methodology for calculating the interest.

A. I first note that, by providing this methodology, I do not agree that the Company overcharged its customers at all during this time period. For purposes of this testimony, however, I assume that the total amount of damages reflected in Ms. Merchant's testimony is correct.

Therefore, in order to calculate the alleged interest expense accurately, overpayments would need to be provided on a monthly basis. Since the alleged "Total Excess Fuel Charges" reflected in Patricia Merchant's Exhibit__(PWM-2) are provided on an annual basis rather than monthly, a monthly interest calculation cannot accurately be made. Therefore one must assume the overpayments occurred ratably in each month throughout the year. In Exhibit No. __ (LJC-1), I have recalculated the interest by multiplying the monthly commercial paper interest rate, as reflected in Patricia Merchant's Exhibit (PWM-2) pages 2-3, by the monthly average balance of overpayments (including

compounded interest). The interest expense using this methodology is $20,637,976, a decrease of $1,853,303 from that reported in Patricia Merchant's Exhibit__(PWM-2). The total ending balance would decrease from $157,014,622 to $155,161,319, assuming the alleged "Total Excess Fuel Charges" reflected in Merchant's Exhibit__(PWM-2) occurred ratably over 12 months.

Q. Is this the methodology you propose to use to calculate the interest on any overpayments that the Commission may award at the conclusion of this proceeding?

A. Yes. This methodology, using a monthly interest calculation rather than an average annual calculation, is appropriate. However, in order to calculate and compound the interest accurately, it is important to determine actual overpayments on a monthly basis, rather than simply dividing an annual amount by twelve months. This reflects the reality that the Company would not have recovered an equal amount of fuel charges each month, but instead the amounts would have varied each month depending on the amount of coal purchased that month. These actual monthly overpayments, if any, should be used to calculate an average monthly balance on which to apply a monthly interest rate, as demonstrated in my Exhibit__(LJC-1).

Q. Do you have any other comments regarding Ms. Merchant's testimony?

A. Yes, I would like to note that, on page 5 of her testimony, Ms. Merchant acknowledges that she only has "annual refund amounts, not monthly amounts."

She also recognizes that the correct interest rate is a monthly interest rate, which she then converts to an annual average interest rate because of the lack of monthly data. Despite this acknowledgement, Ms. Merchant does not calculate the interest payments on a monthly basis.

Q. Does this conclude your testimony?

A. Yes, it does.

CHAIRMAN EDGAR: That brings us, per my list, to Witness Hatt, and I think that's a good time for a break. So I'm going to call it lunch. Anybody else can call it whatever you want. But we will come back -- and we're going to make it kind of a short lunch. Will 2:00 work or will that be a hardship, so we can move through? 2:00? Okay. We will be on break until 2:00.

(Lunch recess taken.)

(Transcript continues in sequence with Volume 5.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, RPR, CRR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

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

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

DATED THIS 12th day of April, 2007.

Linda Boles

LINDA BOLES, RPR, CRR
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