State of Florida

Public Service Commission

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-M-E-M-O-R-A-N-D-U-M-

DATE: June 27, 2007

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (McNulty, Draper, Lester, Matlock, Maurey, Sickel, Slemkewicz, Springer)
Division of Competitive Markets & Enforcement (Coston, Fisher, Vinson)
Office of the General Counsel (Bennett, Holley, Young)

RE: Docket No. 060658-EI – Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to refund customers $143 million.

AGENDA: 7/10/07 – Regular Agenda – Posthearing Decision – Participation is Limited to Commissioners and Staff

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: McMurrian

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

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Acronyms and Abbreviations

AARP – AARP
AGO - Attorney General's Office
Btu - British thermal unit
CAPP - Central Appalachian
CFR - Code of Federal Regulations
Commission - Florida Public Service Commission
CQIM - Coal Quality Impact Model, currently updated it is the VISTA model
CR1 and CR2 - Crystal River Units 1 and 2
CR3 - the Crystal River Unit 3 nuclear unit
CR4 and CR5 – Crystal River Unit 4 and Crystal River Unit 5
CSX - the CSX railroad
DEP – Department of Environmental Protection
EFC – Electric Fuel Corporation, the predecessor to PFC
FIPUG – Florida Industrial Power Users Group
FPC- Florida Power Corporation, the predecessor to PEF
IMT - International Marine Terminal
KWH - kilowatt hour
MMBtu - million British thermal units
MW - megawatt
MWH - megawatt hour
NRC - Nuclear Regulatory Commission
OPC – Office of Public Counsel
PEI - Progress Energy, Inc., the parent company of PEF and PFC
PEF - Progress Energy Florida; formerly Florida Power Corporation
PFC - Progress Fuels Corporation fka Electric Fuels Corporation or EFC, the PEI subsidiary that bought fuel for PEF
PRB - Powder River Basin
RFP - Request for Proposals
Title V - Title V of the 1990 Amendments to the Clean Air Act
Siting Board – Florida Electrical Power Plant Siting Board
Synfuel - synthetic fuel

Case Background

By motion filed September 30, 2005, in Docket No. 050001-EI, In re: fuel and purchased power cost recovery clause with generating incentive performance, the Office of Public Counsel (OPC) petitioned the Commission to establish a "separate 'spin-off' docket to evaluate the prudence and reasonableness of certain coal purchases made by Progress Energy Florida, Inc. (PEF) from its affiliate Progress Fuels Corporation." Id. The prehearing officer denied OPC's motion and the issue was included in the November 2005 fuel proceeding.[1] On November 4, 2005, OPC filed a motion to defer the issue of the prudence of PEF's coal procurement until the next fuel proceeding. At the conclusion of the fuel clause hearing, the Commission granted the motion to defer the issue.[2]

On August 10, 2006, OPC filed its Petition to require Progress Energy Florida to refund customers $143 million, and this docket was opened to address the petition. On August 30, 2006, PEF moved to dismiss OPC's petition, arguing that the Commission lacked authority to review PEF's coal expenditures from 1996 to 2005. PEF's arguments were based on the doctrines of administrative finality, retroactive ratemaking, improper hindsight review, and due process violations. The Commission denied the motion to dismiss.[3]

The Attorney General, AARP, Florida Industrial Power Users Group ("FIPUG"), OPC, PCS Phosphate/White Springs, and PEF were parties to the proceeding. OPC, AARP, PEF, and Commission staff prefiled testimony. On April 2-5, 2007, the Commission conducted a full evidentiary hearing, at which it heard witness summaries, cross examination, and admitted testimony and exhibits into the record.

Prudence Review

At issue is whether PEF acted prudently in its coal procurement practices from 1996 to 2005. Prudence has been defined as "what a reasonable utility manager would have done in light of conditions and circumstances which were known or reasonably should have been known at the time the decision was made."[4] In the Maxine Mine Case, Order No. 13452, issued June 22, 1984, in Docket No. 820001-EU-A, In re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities (Gulf Power Company – Maxine Mine), the Commission described in detail the type of review it would perform in reviewing prudence:

> Significant controversy has arisen over the manner in which we should review Gulf's actions to determine whether its decisions regarding Maxine Mine Coal purchases were prudent. Theories have ranged from a prohibition against

[1]Order No. PSC-05-1106-PHO-EI, issued November 3, 2005, in Docket No. 050001-EI, In re: fuel and purchased power cost recovery clause with generating incentive performance, p.52. The issue was included as Issue 13L: Were the prices that PEF paid to Progress Energy Fuels Corporation for coal reasonable in amount? If not, what adjustment should be made?

[2]Order No. PSC-05-1252-FOF-EI, issued December 23, 2005 in Docket No. 050001-EI, In re: fuel and purchased power cost recovery clause with generating incentive performance, pp. 27-28.

[3]Order No. PSC-07-0059-PCO-EI, issued January 22, 2007, in Docket No. 060658, In re: Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to refund customers $143 million.

[4] City of Cincinnati v. Public Utilities Commission, 620 N.E. 2d 826 (Ohio 1993).

> looking at the prudence of entering into a contract at any time except immediately after it is entered into, to a proposal to view the prudence of a contract from a purely retrospective basis. We believe that it is important to strike proper balance, and we believe that we have done so.
>
> The fact that it is a utility's actions rather than our own that we are reviewing dictates that utility contract problems will not come to our attention immediately. Many problems in procurement have a gradual aspect which can be perceived by the persons directly involved but not by third parties. Any approach to reviewing the prudence of contract decisions must recognize the propriety of looking at past actions, otherwise the natural lag in our ability to detect procurement problems will preclude us from acting on them. An approach that limits the review of prudence to contemporaneous events fails to recognize the duty of this Commission to protect the ratepayers' interest and the fact that utilities are not entitled to recover expenses imprudently incurred. On the other hand, the use of pure hindsight in assessing the prudence of past action is patently unfair. A utility should not be charged with knowledge of facts which cannot be foreseen or be expected to comply with future regulatory policies. Expectations are not always borne out. The prudence of decision making should be viewed from the perspective of the decision maker at the time of the decision.
>
> Contract administration must be viewed at a point in time which takes into consideration the facts which were known or which should have been known at the time the contract is entered into or amended. If during the period of contract administration there is a period of mismanagement, whether short or long, any additional costs incurred as a result of that mismanagement should be disallowed even though the average price over the life of the contract is close to average market price.
>
> In this case, we have looked at the prudence of Gulf's actions in terms of the facts that were known or that should have been known at the time of the decision. In so doing, we believe that we have properly protected Gulf's ratepayers' interests while recognizing Gulf's need to engage in independent decision making. We do not intend to become involved in the actual management of a utility. However, we expect a utility's management to act prudently. We have not sought to retroactively apply new policies to Gulf's prior actions and we have recognized that a utility cannot foresee the future. In this case we have determined that Gulf acted imprudently, that Gulf's imprudence resulted in excessive costs, and that the excessive costs should be disallowed and refunded to Gulf's ratepayers.

The Commission must avoid impermissibly applying hindsight review, which is the application of facts that are known today to decisions made in the past (i.e., Monday morning quarterbacking). As the Commission considers whether PEF acted prudently, it must ask itself, did PEF know or should PEF have known about a particular set of circumstances, when it made the coal procurement decisions OPC has challenged.

Historical Background

The fuel cost recovery clause (fuel clause) is a regulatory tool designed to pass through to utility customers the costs associated with fuel purchases. The purpose is to prevent regulatory lag. Regulatory lag occurs when a utility incurs expenses but is not allowed to collect offsetting revenues until the regulatory body approves cost recovery. Regulatory lag has historically been a problem because of the volatility of fuel costs. Regulatory lag is not of as much concern when expenses, such as capital improvements, and operations and management costs, can be planned for and included in base rate calculations. Different states have addressed volatile fuel costs in differing ways. Several jurisdictions, like Florida, have allowed recovery of fuel costs in a fuel adjustment clause. The operation of the fuel adjustment clause varies from state to state. Florida's practice of allowing cost recovery through the fuel adjustment clause has developed over the years.

Currently, the fuel clause hearing is held in November of each year. See, for example, the Order Establishing Procedure, Order No. PSC-07-0221-PCO-EI, issued March 12, 2007, in Docket No. 070001-EI, In re Fuel and purchased power cost recovery clause with generating performance incentive factor. It is typically scheduled as a several day proceeding during which the Commission considers all of the cost recovery clauses.[5] During the proceeding, testimony and exhibits are admitted for each of the five dockets. At the conclusion of the fuel clause proceeding, the Commission sets a factor for the fuel cost recovery clause based on three years of data. The utilities present testimony showing the actual costs expended for the prior year, the actual and projected costs for the current year, and the projected costs for the following year for both fuel and purchased power costs. In addition, the utilities submit testimony as to whether they achieved their performance goals for the prior year and also set goals for the following year. There is a standard list of issues which the Commission considers every year. In addition, parties and staff may propose additional issues for the Commission's consideration. Those issues may be adjudicated at the fuel proceeding, spun out into a separate docket (as this was), or otherwise disposed of by the prehearing officer. See, for example, Order No., PSC-05-1252-FOF-EI, issued December 23 2005, in Docket No. 050001-EI, In re Fuel and purchased power cost recovery clause with generating performance incentive factor, which is the final order approving fuel cost recovery factors to be applied in 2006.

From 1925 to 1951, prior to the Commission's jurisdiction, Florida's investor-owned electric utilities benefited from a monthly fuel adjustment clause. Starting in 1951, when the legislature granted the Commission jurisdiction over investor-owned electric utilities, the utilities applied a formula approved by the Commission, and placed the resulting charge on customers' bills. While some auditing functions were performed by Commission staff, no formal public hearing was held. In 1973-1974, a foreign oil embargo substantially increased the cost of oil, leading to increased consumer concern over fuel adjustment charges. On October 7, 1974, the

[5] Docket No. 060001-EI, In re: fuel and purchased power capacity cost recovery clause with generating incentive performance . Docket No. 060002-EG, In re: conservation cost recovery clause. Docket No. 060003-GU, In re: purchased gas adjustment true-up. Docket No. 060004-GU, In re: natural gas conservation recovery clause. Docket No. 060007-EI, In re: Environmental Cost Recovery Clause.

Commission decided to open a docket to fully review the clause process.[6] Two days later, on October 9, 1974, the Attorney General issued an advisory opinion which stated that the practice of allowing changes in the fuel adjustment charges without a public hearing was illegal under Florida law. 74 Op. Att'y. Gen. Fla. 309 (1974). On October 11, 1974, the first fuel adjustment clause hearing was held which led to the approval of a stipulation that provided for a monthly hearing format on all fuel adjustment clauses. Order No. 6357. During the 1974 proceeding, the Commission also considered recommendations on the modification of the clause. Having considered input from interested parties, the Commission implemented a two-month lag between utilities filing for fuel clause recovery and the Commission making a decision on those cost recoveries. At the time, the two month lag was intended as an incentive to the utilities to optimize fuel costs.

In 1980, the Commission modified the clause again.[7] By Order 9273, utilities were able to collect fuel and fuel related expenses on a current basis using the projections of future fuel and fuel related expenditures subject to a true-up hearing. A true-up hearing is a hearing in which the utilities' projected fuel expenditures are adjusted to recover only actual expenditures. A specific Generating Performance Incentive Factor was adopted as part of the projected fuel adjustment clause to provide a quantifiable incentive for utilities to optimize fuel costs. Order No. PSC-98-0691-FOF-PU, issued May 19, 1998, in Docket No. 980269-PU, In re: Consideration of change in frequency and timing of hearings for fuel and purchased power cost recovery clause, capacity cost recovery clause, generating performance incentive factor, energy conservation cost recovery clause, purchased gas (PGA) true-up, and environmental cost recovery clause. Also, during this time, the Commission modified its fuel adjustment hearings from once a month to every six months, and subsequently modified it to once a year. The Commission was aware that the process associated with such an approach, which involved the use of projections, would not necessarily permit the Commission to scrutinize the claimed costs with care prior to the initial approval of the collections. Thus, after implementing the 1980 clause modification, the Commission considered the issue of its jurisdiction to adjust the dollar amounts that flowed through the clause if subsequent, more detailed evidence disclosed that the dollar amounts were imprudent or unreasonable. Order No. 9273.

In 1983, the Commission conducted a hearing on the issue of whether the Commission had jurisdiction to adjust past dollar amounts that flowed through the clause. At the hearing, staff and OPC proposed that the Commission adopt a mechanism to specifically identify any prudence issues within three years of the date collection is approved.[8] This seminal order, Order

[6] Order No. 6357, issued November 26, 1974, in Docket No. 74680, In re: General Investigation of Fuel Adjustment Clauses of Electric Companies.

[7] Order No. 9273, issued March 7, 1980, in Docket No. 74680, In re: General Investigation of Fuel Cost Recovery Clause. Consideration of Staff's Proposed Projected Fuel and Purchased Power Cost Recovery Clause with an Incentive Factor.

[8] "The staff proposed that we change the clause so that, instead of requiring proof of prudence at the true-up immediately following a six month period, we simply limit our jurisdiction over all transactions passed through the fuel clause for a period of three years from the date we approve the amount at the true-up hearing. Under the staff proposal, if before the end of the three year period the Commission indicates a need for further review for any specific transaction, the Commission would explicitly retain jurisdiction over amounts passed through the fuel clause relating to that transaction. The Commission may then continue jurisdiction over those amounts until a final order is issued. Once a specific transaction which has been explicitly set aside for review has been ruled upon by the

No. 12645, issued November 3, 1983, in Docket No. 830001-EU, In re: Investigation of Fuel Adjustment Clauses of Electric Utilities changed the way the fuel clause proceedings were conducted. The Commission rejected any attempts to limit its ability to identify issues linked to past collected amounts to a specific time frame. The Commission rejected the staff's proposal to limit prudence jurisdiction to three years and stated:

> We see no justification in limiting our ability to scrutinize past transactions. We fully intend to review a utility's procurement decisions solely in light of the facts known or knowable at the time a decision was made. The appropriate limitation of our jurisdiction is based on whatever statute of limitations or other jurisdictional limitations applies to our actions as a matter of law.

Order 12645 at p. 8-9. As of today, there is no statute of limitation or jurisdictional limitation placed on the Commission's ability to review past expenditures. In Order 12645 the Commission stated that:

> At the true-up hearing that follows a six month period a utility will still be free to present whatever evidence of prudence it chooses to provide. We note that certain utilities have periodically presented broad statements as to the prudence of their fuel procurement activities. Such presentations are not inappropriate, but they hardly elucidate the subject matter. Fuel procurement is an exceedingly complex matter and a determination of the prudence of procurement decisions requires a complex analysis. While a utility may feel satisfied that it has properly met its burden by such a presentation, we expect the quality and quantity of evidence to be presented in support of the prudence of fuel procurement decisions to match the complexity of the subject matter. We will therefore accept any relevant proof a utility chooses to present at true-up, but we will not adjudicate the question of prudence, nor consider ourselves bound to do so until all relevant facts are analyzed and placed before us. We will be free to revisit any transaction until we explicitly determine the matter to be fully and finally adjudicated.

Order 12645 at p. 9. The Commission further stated in Order 12645 that:

> The question of whether we may review the prudence of expenditures made during prior true-up periods is governed by whether the prudence of expenditures has been adjudicated. The issuance of a true-up order does not adjudicate the question of prudence per se. As pointed out by staff, the true-up hearings have never been relied upon by the Commission or any other party as the point at which prudence is actually reviewed. With rare exception, prudence has not been alleged, proven nor ruled upon during those proceedings. An actual adjudication of prudence depends on whether an allegation of prudence was made, evidence was presented thereon and a ruling made. Where an expenditure has been disputed and its prudence examined on the record, a ruling in favor of prudence

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Commission, the Commission would lose jurisdiction over that transaction for the period reviewed by the Commission." Order No. 12645, issued November 3, 1983, in Docket No. 830001-EU, In re: Investigation of Fuel Adjustment Clauses of Electric Utilities.

> should be inferred even if none is explicitly made. This approach to jurisdiction over prior true-up periods naturally involves a review of the record of prior proceedings. Since several hearings are held each year, this process is necessarily complex. We will defer such a review until such time as we must face the question for a particular utility.

Order 12645 at p. 10

In Order No. 13452, issued June 22, 1984, in Docket No. 820001-EU-A, In re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities, the Commission faced the question of prudence for a particular utility (Gulf Power Company). This case, better known as the "Maxine Mine" case, discussed in part at pp. 5-6 above, involved a review of certain costs associated with Gulf Power's 1974 contract extension to purchase coal from the Maxine coal mine in Alabama. The Commission considered whether to adjust the expenses that had flowed through the fuel clause from the 1974 contract extension to 1983. The Commission found that because of the rising cost of coal in the market, the rate payers were not harmed until 1980. The Commission opined that Gulf Power should have negotiated and administered the extension of its contract differently. Gulf Power argued that the Commission could not reach back to a period prior to a 1981 true-up order. The Commission properly regarded the subject of its jurisdiction over past collected amounts as having been decided in Order No. 12645. Citing directly from Order No. 12645, the Commission reiterated its holding that the issuance of a true-up order does not adjudicate the issue of prudence of past expenditures.[9] The Commission explained the rationale behind its decision:

> The approach announced in Order No. 12645 is fair to all involved. In normal ratemaking a utility is not entitled to receive a rate increase until after it has demonstrated that it is not earning a fair rate of return on its investment in property used and useful in the public service. The utility must demonstrate that its investment was prudent, its capital costs are reasonable, and that its expenses were prudently incurred. The delay in receiving rate relief under normal ratemaking is referred to as regulatory lag. Regulatory lag arises because it is the utility and not the Commission that possesses the information needed to decide the issues. The time needed by the Commission to collect and analyze relevant information causes regulatory lag . . . . A utility may now recover its entire fuel cost concurrent with the expense . . . . Although the effect of regulatory lag on a utility's rates is now eliminated, regulatory lag still exists. It still takes time for the Commission to collect and analyze information relevant to the accuracy and prudence of fuel expenditures. Under the new clause recovery is immediate. There is a trade-off under the new clause, however, as a utility remains uncertain as to whether the Commission will ultimately determine its expenditures to be prudent.

[9] Order No. 13452, issued on June 22, 1984, in Docket No. 820001-EU-A, In re: Investigation of Fuel Cost Recovery Clauses of Electric Utilities.

Id., at pp. 46-48. Gulf Power appealed Order No. 13452. Gulf Power Company v. Florida Public Service Commission, 487 S. 2d 1036 (Fla. 1986). On appeal, Gulf Power raised several issues including whether the refund order constituted retroactive ratemaking, which is prohibited. The Supreme Court affirmed the Commission, holding that the order does not constitute retroactive ratemaking. The Court reasoned that:

> Fuel adjustment charges are authorized to compensate for utilities' fluctuating fuel expenses. The fuel adjustment proceeding is a continuous proceeding and operates to a utility's benefit by eliminating regulatory lag. This authorization to collect fuel costs close to the time they are incurred should not be used to divest the commission of the jurisdiction and power to review the prudence of these costs. The order was predicated on adjustments for 1980, 1981, and 1982. We find them to be permissible.

Gulf at p.1037. Thus, the Commission's ability to review past expenditures by utilities is essentially a quid pro quo that was established in return for the benefit utilities receive.

Since the Maxine Mine case, the Commission has continuously held that it has jurisdiction to review past expenditures of utilities to determine if they were prudently incurred. In every Final Order entered after a fuel proceeding, the Commission has stated "that the estimated true-up amounts contained in the fuel cost recovery factors approved herein are hereby authorized subject to final true-up, and further subject to proof of the reasonableness and prudence of the expenditures upon which the amounts are based."[10] In Order No 15486, issued December 23, 1985, in Docket No. 840001-EI-A, In re: Investigation into Extended Outage of Florida Power and Light Company's St. Lucie Unit No. 1, the Commission reviewed a past expenditure that was sixteen years old. In that case, FPL sought to recover through the fuel clause expenses it incurred because a 822 megawatt nuclear generating unit was inoperative for fifteen months. FPL alleged that damages that occurred to the unit's reactor required extensive repairs to the reactor core support barrel and the reactor thermal shield. When analyzing FPL's expenses to supplant the unit's generation, the Commission reviewed the prudence of FPL's decision to design a unit that included a thermal shield sixteen years earlier and said:

> Examining the facts surrounding a decision made 16 years ago is difficult at best . . . . Notwithstanding the difficulty involved, our responsibility is to investigate and then determine the reasonableness and prudence of given expenditures by attempting to analyze the actions of the decision-makers in light of the circumstances then known to them or that they should have reasonably been aware of if they were proceeding in a reasonable, prudent and efficient manner. For the reasons that follow, we find that FPL's decision to include a thermal

[10] Order No. PSC-97-1045-FOF-EI, in Docket 970001-EI, issued on September 5, 1997, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor; Order No. PSC-98-1223-FOF-EI, in Docket No. 980001-EI, issued on September 17, 1998, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor; Order No. PSC-02-1761-FOF-EI, in Docket No. 020001-EI, issued on December 13, 2002, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor.

> shield in the design of SL1 was prudent when we consider the information known to the decision-makers at the time of the relevant decisions.

Order No. 15486 p. 8. Ultimately, the Commission decided that FPL was prudent.

This case is consistent with recent decisions of the Commission to review past expenditures of utilities to determine if they were prudently incurred. This present docket was developed as a result of the operation of the fuel clause.

The recommendation that follows provides staff's analysis of the issues raised at the April 2-5, 2007, hearing to determine the ultimate question of whether PEF made prudent purchases of coal to be burned at CR4 and CR5 from 1996 to 2005. The Commission has jurisdiction over this matter pursuant to Sections 366.01, 366.04, 366,041, 366.05, 366.06 and 366.07, Florida Statutes.

Executive Summary

On August 10, 2006, OPC filed its petition alleging that PEF, instead of burning the design basis blend of coal for Crystal River Units 4 and 5 (CR4 and CR5), favored affiliates and bought only bituminous coal and synfuel for the units for the period 1996-2005. OPC further alleges PEF's actions were imprudent because PEF did not give timely consideration to a coal blend of 50 percent Powder River Basin (PRB) coal and 50 percent bituminous coal – the design blend. PRB coal is sub-bituminous coal mined in Wyoming and Montana, and has a lower heat content than bituminous coal. Nationwide, the use of PRB coal for generating electricity grew during the 1980s and 1990s. OPC calculates the excess cost to be $134.5 million over the period 1996 through 2005 and recommends the Commission require PEF to refund the excess cost with interest to customers.

Issue 1 addresses whether PEF was prudent in purchasing coal for CR4 and CR5 for the period 1996 through 2005, and staff provides alternative recommendations. Primary staff's recommendation is that PEF was imprudent in its coal procurement activities during the years 2001 to 2005. Primary staff believes PEF's management was imprudent regarding the 2004 test burn and the 2001 RFP evaluation. The result is a missed opportunity to burn a coal blend with 20 percent PRB coal, which would have saved $12,453,457. Given this, the primary recommendation for Issues 2 and 4 is that customers should receive a refund of $12,453,457 plus interest. With interest through May 2007, the total amount is $13,796,073. Primary staff believes no penalty should be applied.

Alternative staff's recommendation is that PEF was prudent in purchasing coal for the period 1996-2005 and no refund or penalty should be applied. Alternative staff believes that PEF's conduct fell within a range of reasonable decisions and was therefore prudent. Alternative staff believes that PEF was conscious of several material issues regarding the use of PRB coal and chose to move more cautiously toward including PRB coal at its Crystal River site. Of import to PEF was that CR4 and CR5 were base load units and suffering a derate with lower Btu coal was unacceptable. Also, PEF was aware of the volatility of PRB coal, which is a concern when used at a nuclear power site. PEF would also incur additional capital and operation and maintenance expenses to use PRB coal.

To develop and organize the evidence, the prehearing officer included eight topics under Issue 1. Those topics are merely for organizational purposes. No vote is required for the topics. The Commission can consider the topics independently and give each the weight it believes appropriate. The Environmental Permitting topic concerns whether PEF maintained the appropriate permitting for using the most economical coal. The Coal Procurement Practices and Coal Cost and Availability topics address PEF's coal procurement for the period including the RFP process, the appropriate transportation costs, and the use of South American coal. Safety, blending, handling, and storage issues related to PRB coal are covered in the CR3 and CR4 and CR5 Operational Matters topics. Staff analyzes whether burning PRB coal will cause a loss of MW output at CR4 and CR5 in the Megawatt Capacity topic. PEF used an affiliated company, Progress Fuels Corporation (PFC), for coal supply during the period. The Affiliates topic covers whether PEF, in purchasing coal, had inappropriate dealings with affiliated companies. The last topic is Other Factors.

Issues 2, 3, and 5 concern matters of law and appropriate fuel clause policy. PEF has alleged that the Commission cannot legally, and should not as a matter of policy, reach back ten years to review the prudence of a utility's activities, absent a showing of misconduct on the part of the utility. Issue 3 asks whether the Commission, as a matter of law, has the authority to require a refund. Staff recommends that the Commission has the authority to require the refund. The Commission can and has reviewed the prudence of prior conduct of investor-owned utilities. The Florida Supreme Court, as well as prior Commissions, have affirmed this approach. This quid pro quo policy - quick recovery of money expended in exchange for a possibility of a future prudence review - is no surprise to utilities or the investment community as Order No. 12645 has been in effect since 1983.

Issue 2, the policy issue, asks the Commission whether, as a matter of policy, it should require PEF to refund monies if PEF is found imprudent. This Commission has an opportunity to re-evaluate the policy, if it so desires. If this Commission wishes to consider a change in the manner prudence reviews of fuel expenditures are done, then staff recommends the Commission encourage parties to Docket No. 070001-EI to address, in their projection testimony to be filed in September 2007, the issue of whether and how the Commission should conduct prudence reviews of fuel and purchased power costs approved for cost recovery in the fuel docket.

In Issue 5, AARP urges the Commission to penalize PEF. Staff notes that monies collected as penalties go to the state's general revenue fund and do not return to the ratepayers. The Florida Legislature established the manner in which the Commission may penalize a utility. No evidence that PEF willfully violated any rule or statute was presented. Therefore, as a matter of law, no penalty should be imposed.

Issue 4 addresses what amount, if any, the Commission should require PEF to refund to customers. Issue 6 is whether the docket should be closed.

The table below summarizes the positions of the parties and staff.

BOTTOM LINE POSITIONS		
OPC, AG	$134.5 million refund plus interest of $20.6 million thru Dec. 2006 for a total refund of $155.1 million. No Position on the penalty.	CR4 and CR5 were designed to burn a blend of 50 percent bituminous and 50 percent sub-bituminous coal. PEF imprudently favored affiliates and ignored lower cost PRB coal in purchasing coal for the units during 1996 through 2005. Excess coal costs and excess SO2 allowance cost are $116.6 million and $17.9 million, respectively. Capital costs of $2 million and annual O&M of $1.5 million would be associated with a coal blend with 50 percent PRB coal. No loss of MW output would occur if a 50/50 blend were burned. CR3 is surrounded by coal units so bringing PRB coal on-site would not be a problem. Interest to accrue through the completion of the refund.
PEF	No refund No penalty	PEF was prudent in purchasing coal for CR4 and CR5 during 1996 through 2005. PEF did not favor affiliates in purchasing coal or synfuel. If a 50/50 PRB coal blend was burned during the period, PEF would have incurred $60.2 million in capital costs and $2 million O&M annually. Replacement Power due to a 124 MW loss of output for the units would have cost $696.9 million to $966 million for the period. Also $21 million for the period for additional transportation costs. An incremental risk evaluation per NRC rules would have been necessary.
AARP, FIPUG, White Springs	$134.5 million refund plus interest of $20.6 million thru Dec. 2006 for a total refund of $155.1 million. Impose a penalty.	Adopts OPC's position. Adds a penalty based on a violation of the fair and reasonable standard laid down by Chapter 366 F.S.
Staff Primary	$12,453,457 refund plus interest of $1,342,616 thru May 2007 for a total refund of $13,796,073. Apply in 2008. No penalty	PEF was imprudent in purchasing coal for CR4 and CR5 during 2001 to 2005. Starting in 2001, PEF should have begun the shift to a PRB coal so that by 2003 a 20 percent blend, blended off-site, could have been burned at CR4 and CR5. No MW output loss would have occurred. Interest to accrue through the completion of the refund. The refund should apply to the 2008 fuel factors.
Staff Alternative	No refund No penalty	PEF was prudent in purchasing coal for CR4 and CR5 during 1996 through 2005. PEF's procurement practices did not favor affiliates. If a coal blend with 50 percent PRB coal was burned during the period: (1) PEF would have experienced a significant loss of MW output resulting in costly replacement power, (2) CR4 and CR5 are must-run units; with lower PRB blends, the risk of a derate still would be present. (3) PEF would have incurred some level of capital costs and additional O&M expenses depending on blending site, and, (4) an incremental risk evaluation per NRC rules would have been necessary. PEF was appropriately cautions in considering switching fuel types.

Discussion of Issues

Issue 1: Did PEF act prudently in purchasing coal for Crystal River Units 4 and 5 beginning in 1996 and continuing to 2005?

Primary Recommendation: No. PEF did not act prudently in purchasing coal for CR4 and CR5 during the period 2001 through 2005. As discussed in Issues 2 and 4, the Commission should require PEF to refund to customers the amount of $12,453,457 plus interest. In addition, the Commission should direct PEF to supplement its 2006 Final True-Up Testimony in Docket No. 070001-EI to address whether the Company was prudent in its 2006 and 2007 coal purchases for CR4 and CR5. (McNulty, Vinson, Fisher, Coston)

Alternative Recommendation: Yes. PEF acted prudently in purchasing coal for CR4 and CR5 during the period 1996 through 2005. (Lester, Sickel, Matlock)

Position of the Parties

OPC: No. To achieve flexibility, PEF designed and built Crystal River 4 and 5 to be able to burn a 50/50 blend of subbituminous and bituminous coals. In the early 1990s the discovery of higher Btu subbituminous Powder River Basin coal and competition between railroads caused PRB coal to become significantly cheaper (delivered) than the eastern bituminous coal PEF was burning in CR4-5. As other utilities turned to Powder River Basin coal to lower fuel costs borne by customers, PEF continued to purchase more expensive bituminous coal and "synfuel" from its affiliates and pass the extra costs on to customers. PEF knew, or should have known, of the opportunity presented by PRB, and should have acted timely to lower its fuel costs during 1996-2005. There was no impediment between a management acting prudently in its customers' interests and significantly lower fuel costs.

PEF: Yes. PEF's coal purchases for CR4 and CR5 over the past decade, as reflected in PEF's direct and rebuttal testimony and exhibits, were reasonable and prudent. PFC regularly issued Requests for Proposals ("RFPs") for bituminous and sub-bituminous coals for CR4 and CR5 and participated in spot market purchases in response to offers when reasonable to do so. Coals offered in response to PFC's RFPs and in the spot offers were selected when most cost-effective to purchase them, considering the delivered and evaluated cost. No prudent utility looks only at the delivered price to determine what coal to buy. A prudent coal procurement decision-making process involves the analysis of myriad other factors that can affect the delivery, transportation, handling, and operation of the unit to reasonably and prudently determine the best coal for a particular unit. When considering these factors, it is clear that PEF acted prudently.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: No. When a regulated utility operates under the aegis of a public utility holding company and buys coal, coal processing and coal transportation services from affiliated companies under secret non competitive agreements it is imprudent to charge customers more

than the competitive market price for the product. Evidence discloses that PEF had the capability to burn less expensive coal. Even though other utilities turned to Powder River Basin coal to lower fuel costs to customers, PEF continued to purchase more expensive bituminous coal and "synfuel" from its affiliates and pass the extra costs on to customers.

White Springs: No. PEF has not satisfied its burden of demonstrating that its coal purchases for CR units 4 and 5 were prudent over this period. The testimony and evidence of the OPC witnesses establish that PEF unreasonably avoided purchasing a blend of bituminous and sub-bituminous coals for these units even though there was ample evidence that such a blend was more economical and the units were designed to burn such a blend to lower fuel costs to consumers.

Staff Analysis - Introduction

Staff has analyzed the record and the parties briefs in this case in reaching its recommendation. There are eight topics for which parties and staff presented record evidence. Each party included a position on each of the topics. The topics, the parties positions regarding that topic, a summary of the arguments, and staff's analysis are included below. Following the eight topics, the primary staff and the alternative staff have presented their conclusions on Issue 1. The Commission should not vote on the individual topics. The topics are organizational tools for the Commission to use in evaluating and ruling on the prudence of PEF's coal procurement practices during 1996-2005. While the Commission may consider each of the following topics, it is not limited by or required to give equal weight to each topic.

1.1 Environmental Permitting

1.1.1 Parties Position Statements on Environmental Permitting

OPC: The Siting Board's certification order terms allowed PEF to burn the 50/50 blend in CR4-5. Subsequently, PEF jettisoned subbituminous coal from its application for its first federal "Title V" permit. Since 2000 (when that permit took effect) PEF has not been authorized to burn PRB coal in units designed to burn it. Having ensured that result, in this case PEF first pointed to its limited permit as justification for not purchasing cheap PRB, yet now claims the same omission was "no harm, no foul." PEF's permitting conduct was as conspicuously imprudent as its explanations are contradictory and disingenuous.

PEF: PEF acted reasonably and prudently in obtaining environmental permits for CR4 and CR5. From when the units came online until the mid-90's, no one disputes that PEF was burning and should have burned bituminous coal. PEF did not have unconditional authority to burn a blend of sub-bituminous coal, because it could not be assured that the units would remain in compliance with emissions limitations. Furthermore, given the time needed to obtain a permit modification, compared to the time needed to make operational changes, there would be no detriment to PEF or the ratepayer caused by waiting to change these permits.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: PEF specified, designed, procured power plant need certification and constructed two generating plants capable of burning PRB coal. The additional cost for this capability increased the long term cost passed through to customers in base rates. PEF was then surprisingly imprudent in failing to include the possibility that it would burn this low cost clean burning fuel when it became available in its initial Title V Air Quality Application and to perform the requisite test burn. This failure inhibited PEF's ability to give customers the benefit of the lower cost fuel it promised in return for the higher cost plant construction.

White Springs: White Springs adopts the position of OPC as its own.

1.1.2 Analysis of Parties Arguments on Environmental Permitting

A. OPC Argument

OPC witness Sansom states that PEF surrendered its ability to burn PRB sub-bituminous coal in the mid-1990s, when new federal regulations required additional environmental permitting. Witness Sansom believes that the company, under its original certification issued in 1978 by the Electrical Power Plant Siting Board, received authorization to burn a blend of sub-bituminous and bituminous coal in CR4 and CR5. (TR 57) Witness Sansom believes that PEF's exclusion of sub-bituminous coal from its Title V operating permit limited the company's ability to burn sub-bituminous coal, and to react to shifting economics in the coal industry. (TR 41) Witness Sansom states:

> In fact, in 1996 PEF took steps to abandon its authority to burn sub-bituminous coal in Units 4 and 5 by omitting sub-bituminous coal from its application for the newly-required federal Title V air permit. For a full decade after it should have shifted to a 50 percent Powder River Basin (PRB) sub-bituminous coal blend with bituminous coal, PEF continued to burn bituminous coal and a product of bituminous coal treated with oil called synthetic fuel or "synfuel." ... When PEF belatedly attempted to move towards sub-bituminous coal in 2004, its earlier imprudent decision to omit sub-bituminous coal from its federal environmental permit and its repeated failures to conduct test burns complicated and delayed its ability to do so. (TR 41)

Witness Sansom also believes that the units' design should have directed the company's Title V permitting process. Witness Sansom states that since the original design of CR4 and CR5 incorporated the use of sub-bituminous coal: "it was folly for PEF to abandon its authority to use the capability designed into the units. This would have been the case even if preserving the ability was needed only to prepare for future contingencies." (TR 58) Witness Sansom contends that PEF's failure to burn a 50/50 blend of PRB and bituminous coal, and its conflicts of interests, cost ratepayers $50,886,616 in 2004 and 2005 alone. (TR 92)

Regarding PEF's 2006 test burn of a blend of 30 percent PRB sub-bituminous coal and 70 percent Central Appalachian bituminous coal for CR4 and CR5, witness Sansom states that it cannot be "surprising" that the burn was successful when the units were designed to burn a 50/50 mixture. Witness Sansom contends that the 2006 successful test burn shows that the April 2004 test burn was mismanaged. Witness Sansom alleges that in 2004, CR4 and CR5 had not been properly prepared for the test burn and personnel had not been briefed adequately. (TR 82) Witness Sansom also says that the 2006 test burn could have taken place in the 1995-1996 time frame because many other utilities test burned PRB coal in 1989-1997, and PEF could have done so, as well. Witness Sansom contends that it is surprising that PEF did not test the 50/50 blend at the outset of operations in the early 1980s. (TR 83)

Witness Sansom also believes that while the company's 1996 application was being processed (1996-1999), PEF could have continued to include sub-bituminous coal under its original certification. He agreed that "... PEF could have purchased PRB coal from 1996-1999...notwithstanding the omission in its 1996 application ...under the environmental agency's applicable rules," as Sansom was informed by Counsel for OPC. (TR 59)

Witness Smallwood states that the original Condition of Certification imposed maximum emission standards for PEF for either a 50/50 sub-bituminous blend or straight bituminous coal. Witness Smallwood asserts "the Condition of Certification did not preclude, and therefore encompassed and allowed, the burning of a blend of sub-bituminous coals and bituminous coals, as long as the applicant adhered to the maximum emission standards."(TR 1471) Witness Smallwood also states PEF's emission standards are the normal standards applicable to units similar to CR4 and CR5's age, regardless of the type of coal used within the units. (TR 1471)

B. PEF Argument

In 1978, PEF received its original site certification for CR4 and CR5. This process included receiving a Conditions of Certification from the state of Florida, and Conditions to Approval from the EPA. These approvals detailed the emission limitations for each unit. (TR 762) As support for PEF's ability to meet and exceed these emission limits, the company provided proof of its long-term bituminous, compliance coal contracts. (TR 763; EXH 127) PEF did conduct a stack performance test, using bituminous coal, to verify compliance with these emissions. (TR 766)

PEF witness Kennedy testifies that he could not guarantee, from 1978 through 1996, that PRB coal would have complied with the emission limits established in the Conditions of Certification and Conditions to Approval. He states that a performance test burn would have been an important, and probably necessary tool, to verify its compliance. (TR 767-768) Also, witness Kennedy states that even though the Site Certification Application notes that CR4 and CR5 were designed to use sub-bituminous coal, the company "never guaranteed that it would use a blend of sub-bituminous and bituminous coals. And neither the Conditions of Certification, nor the Conditions to Approval, include any requirement that PEF burn a blend of sub-bituminous coal." (TR 768-769)

Title V of the 1990 amendments to the Clean Air Act created new air permitting regulations, which specifically required PEF to disclose each type of fuel burned in its coal-fired units. In 1996, PEF was required to submit its initial application, and in doing so, limited its fuel options for CR4 and CR5 to bituminous coal. Witness Kennedy testifies that until this time, PEF had only burned bituminous coal in these units and that PEF supported its application with historical data results from its continued use of this type of coal. (TR 775) Witness Kennedy also testifies that PEF limited its 1996 application to bituminous coal because:

> . . . no other coal was considered economic at the time the permit application was submitted. Other types of coal, including sub-bituminous, also have certain handling and operational issues that make them significantly different from bituminous coal. For all these reasons, Progress Energy Florida only included bituminous coal in its Title V application. (TR 775)

PEF did not believe at the time the application was submitted, it had the authority to burn sub-bituminous coal without testing. Witness Kennedy states bituminous coal was:

> . . . the only type of coal for which performance tests were completed pursuant to the original Conditions of Certification. It was the only type of coal that we know satisfied all requirements of the Conditions of Certification and Conditions to Approval. PEF did not have the authority to burn sub-bituminous coal prior to the [1996] Title V permit application, because the characteristics of sub-bituminous coal render it possible to violate the opacity and particulate emission requirements of the Conditions to Approval and Conditions of Certification. And if a violation could just possibly occur when burning sub-bituminous coal, then Progress Energy Florida would not have burned the coal without taking some additional

steps to convince itself and the DEP that the limits would not be violated. (TR 775-776)

Witness Kennedy believes that between 1996 and 2005 the company possessed neither implicit authority nor explicit authority to burn sub-bituminous coal at its CR4 and CR5 units based on the initial site certification process and the Title V permit. Therefore, according to witness Kennedy, the company never abandoned any existing authority to burn sub-bituminous coal. Also, PEF believes the Title V permitting process created a more rigorous regulatory environment and "the requirements to obtain a Title V permit are quite different from what was required to receive the prior conditions of site certification." (TR 776) Witness Kennedy states that it is more likely that burning PRB coal would violate the limits set by its site certification process and that PEF would not burn the coal without taking some additional steps to convince itself and the Department of Environmental Protection that the certification limits would not be exceeded. (TR 759-760)

In spring 1999, PEF made a request to the DEP to modify its existing Title V application for its CR4 and CR5 units. This amendment asked for the inclusion of bituminous coal/briquette mixture as an acceptable fuel for these units. This fuel is more commonly know as "synfuel." Witness Kennedy states the company chose to make this change because this fuel "had become an economical choice as a fuel alternative for CR4 and CR5." (TR 777) The company was not required to conduct a test burn on this fuel during its Title V modification process. Rather, PEF was able to provide reasonable assurances that emission levels would be met, "because briquettes have the same base as bituminous coal." (TR 778) PEF guaranteed that the "emission levels resulting from the briquettes would be limited at CR4 and CR5 to the average emissions from the prior years at this unit . . . . In addition, the synfuel had a bituminous base and was to be burned in a mixture with bituminous coal, so the unit would never be burning 100 percent synfuel." (TR 777-778) In June 1999, PEF received its amended Title V permit which allowed the company to burn a synfuel mixture at these units. (TR 778)

PEF's witness Pitcher states that a July 2003 PEF Request for Proposal identified foreign bituminous coal as more economical than PRB sub-bituminous coals. Because these import coals did not present the same plant handling and performance issues as PRB sub-bituminous coals, they were the clear choice for CR4 and CR5. Nevertheless, when PRB coal prices moved up at a slower rate than domestic and foreign coals later in 2003, PEF sought to purchase some PRB coals for a test burn. (TR 366)

In 2004, PEF did consider the use of a sub-bituminous coal blend at CR4. The company purchased a quantity of PRB coal and in April 2004 initiated a test burn of this fuel. At that time, PEF's environmental department became aware of the test burn, and verified that the company was not specifically permitted to burn sub-bituminous coal. Witness Kennedy states the test burn was conducted "because the people in the fuels department believed that the units were permitted to burn the sub-bituminous blend." Once PEF became aware of this lack of permitting, management made the decision to halt the burn and notified the DEP of the error. (TR 779)

In 2006, the company notified the DEP of its intentions to conduct another test burn of up to a 30 percent blend of sub-bituminous coal with bituminous coal as the base. In April 2006, the

company received authorization from the DEP to conduct a short-term trial burn of the sub-bituminous/bituminous blend. In May 2006, the company conducted the short-term test burn and decided to continue pursuing this option, and applied for a permanent modification to its Title V permit to include a sub-bituminous blend. This modification, submitted in September 2006, requested that the company be allowed to burn a 30 percent blend of sub-bituminous coal at CR 4 and CR5. (TR 779-780)

Witness Kennedy does not believe that PEF should have conducted a test burn for sub-bituminous coal prior to 2004. The company has stated that PRB coal was not economical for PEF prior to 2004, and therefore was not a viable fuel alternative during this period. Witness Kennedy states that had PEF conducted a test burn of sub-bituminous coal in the early 1990's, or earlier, the emission results would not serve as a "placeholder" for the company to use at a later date. (TR 781) Witness Kennedy refers to an assessment by PEF witness Hatt stating:

> . . . a long-term test burn must be done relatively close in time to when the plant expects to burn the different coal. So any test burn completed a significant amount of time before the plant expected to burn that coal would essentially be a waste. The test burn would have to be repeated for operational purposes. (TR 781)

PEF notes that OPC witness Smallwood recognizes that "even if PEF had done a stack test when the units came online, by the time of the 1996 Title V permit application, another stack test was required." (BR 39)

Also, witness Kennedy states that the time it would take PEF to amend its Title V permit would be less than the company would have needed to complete the anticipated capital operational improvements listed by witness Toms. Witness Kennedy asserts the permit process would take approximately 14 months while the capital improvements would take a minimum of 18 months. (TR 781)

C. Staff Analysis

Staff notes that due to the passage of time, the record gathered in this docket is sparse on contemporaneous evidence regarding the rationale employed by PEF and PFC in making decisions such as those regarding the environmental permits. It is difficult to reconstruct what the companies knew at the time, and what their decisions were based upon. Nevertheless, staff has reached its determination from record evidence of what the utility knew or reasonably should have known at the time PEF made these decisions.

The prudence of several key environmental permitting decisions at CR4 and CR5 are debated in the record. Staff believes these decisions are critical to the utility's ability to burn the PRB coal that OPC alleges PEF should have purchased.

In 1978, the company's initial site certification process allowed for the use of a 50/50 fuel blend of bituminous and sub-bituminous coals. (EXH 127; 128; 206) Staff does agree with Progress Energy that no explicit authority to burn sub-bituminous coal was granted through the site certification process. (TR 767-768) However, based on the initial certification, staff does

agree with OPC that the company did have implicit authority to burn sub-bituminous coal during the early years of CR4 and CR5 operation. (TR 1470-1471) All parties appear to agree, however, that PRB coal was not an economical option during the 1980s.

In 1996, Title V of the 1990 amendments to the Clean Air Act imposed new requirements upon utilities. (TR 761) PEF was required to indicate the specific fuel it intended to burn at its plants, including CR4 and CR5. PEF specified that it would continue to rely on 100 percent bituminous coal that had powered CR4 and CR5 since their initial commercial operation. In 1996, PEF considered the economic viability of sub-bituminous coal to still be in doubt. (TR 775) The company asserts that this application required it to specify the fuels with which it could meet the applicable emission standards. (TR 771) Since only the performance of bituminous coal was known, PEF specified that fuel on the application. (TR 775) Staff agrees that the company could not have listed sub-bituminous coal on the application without conducting a test burn, and that absent a cost analysis showing sub-bituminous coal to be the economic choice, a 1996 test burn would have been premature. Based upon staff's understanding from the record of the Title V process, the company's approach was not unreasonable.

In 1999, another decision point was brought about by PEF's decision to purchase and burn synfuel at CR4 and CR5. This change required the company to revise its still-pending Title V application. No test burn was required since synfuel was expected to have similar burn characteristics as its main ingredient, central Appalachian bituminous coal. (TR 777-778) PEF again opted not to add sub-bituminous coal to its application. Given PFC's claim that sub-bituminous coal was still not economical for PEF in 1999 (TR 288), and the fact that, as of that point, the company had received no PRB coal bids, staff does not believe this step-wise approach was unreasonable. (TR 280-281)

In 2001, PFC received through an RFP solicitation its first economically competitive offer for sub-bituminous coal. (TR 281-282) PFC management was faced with the decision of whether to actively pursue the Title V permit modification necessary to utilize this fuel option. The company did not seek the modification to its permit, although the fuel had become a cost effective alternative based on its own analysis. (EXH 41)

In 2003, PFC and PEF did decide that sub-bituminous coal was becoming a viable option, and therefore attempted a test burn at Crystal River in spring 2004. However, a planning and communication failure by PEF management brought a halt to the test burn. Significantly, PEF's permitting personnel had to inform both PEF plant operations and PFC personnel that the company did not have permits allowing the burning of PRB coal on site. Staff believes this omission significantly delayed the completion of a full test burn until 2006. The company states it "continued evaluating PRB coal blends in 2005, after the 2004 hurricane season, which disrupted the evaluation of other coals." (PEF BR at 11) Based on a combination of internal and external evaluation results conducted in 2005, the company chose to conduct another test burn in April 2006. (PEF BR at 12) PEF recognizes that by the time the 2006 test burn was conducted, some of the economic benefits of PRB coal had diminished from the 2004 period. (PEF BR at 12)

Witness Kennedy testifies that the Title V permit "imposes much more detailed requirements than the previous state air permits and Conditions of Certification," including "detailed fuel specification and data demonstrating assurance of compliance with all regulatory and permit condition limitations and requirements." (TR 770-771) Witness Kennedy states that prior to the Title V permitting process, CR4 and CR5:

> ... never burned anything except bituminous coal. Because burning sub-bituminous coal increases particulate matter and opacity levels, and PEF had to adhere to opacity and mass emission rate limits, PEF could not have burned sub-bituminous coal at CR4 and CR5 without at least notifying the DEP and EPA and probably doing a test burn of sub-bituminous coal. PEF did not do such a test burn, thus it did not have the unconditional authority to burn sub-bituminous coal at CR4 and CR5. (TR 768)

If test burns were required, the process would have taken approximately 14 months. The record relects that as a result of its 1999 Title V application amendment to add synfuel (approved in 2000), and its 2006 Title V request for inclusion of sub-bituminous coal, that a modification to the Title V permit is obtainable within a reasonable period of time.

Therefore, staff believes PEF's approach of including only known fuels in its Title V permit was reasonable. Operating under this approach, however, requires PEF and its management to remain knowledgeable and attuned to the permitting process. Though PEF correctly modified its Title V permit in 1999 to include synfuel, it failed to proactively obtain the proper permitting requirements in 2004 for conducting a sub-bituminous coal test burn. This failure by PEF and PFC to remain aware of the Title V constraints caused the interruption of the 2004 test burn, thereby delaying possible future use of sub-bituminous coal at CR4 and CR5. PEF's failure to obtain proper permitting for the 2004 test burn caused PEF to lose flexibility in its ability to evaluate various types of coal. Staff believes this was an avoidable management error that would have been prevented were there better communications and control by management.

1.2 Coal Procurement Practices

1.2.1 Parties Position Statements on Coal Procurement Practices

OPC: During 1996-2005 PEF's coal procurement practices favored affiliates over more economical alternatives. PEF's claim that PRB producers were disinterested marketers contradicts market information and simply is not credible. PEF failed to exploit its flexible transportation modes so as to accommodate the cheapest fuel. Other flaws in PEF's practices include the failure to position itself to shift to the 50 percent PRB blend timely by maintaining environmental authority and conducting any needed stack tests.

In its inadequate 2004 supplemental solicitation, PEF's affiliate was the only producer of Appalachian bituminous coal that PEF contacted.

PEF: PFC regularly issued RFPs for bituminous and sub-bituminous coals for CR4 and CR5 and participated in spot market purchases in response to offers when reasonable to do so. PFC sent the RFPs to a large list of coal suppliers, and the RFPs were provided to coal trade publications. Coals offered in response to PFC's RFPs and in the spot offers were selected when most cost-effective to purchase them, considering the delivered and evaluated cost, and their availability for delivery under given market conditions or other constraints. When PRB coal producers submitted bids, PEF evaluated them along with all other bids.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: PEF placed coal procurement exclusively in the hands of a non regulated affiliate that profited from the transactions and kept the dealings secret from the general public. When the scientific independent market studies demonstrates that other utilities paid from 10 percent to 50 percent less for coal during the 1996-2005 period an aura of impropriety falls upon the profitable in house transactions at customer expense. PEF's evidence that it merely published broadcast requests for proposals that included lower priced coal mines falls short of the burden it must bear to shed the mantle of misconduct.

White Springs: White Springs adopts the position of OPC as its own.

1.2.2 Analysis of Parties Arguments on Coal Procurement Practices

A. OPC Argument

OPC questions the overall prudence of the processes employed by PFC to obtain coal for PEF, as well as the decisions that flowed from those processes. OPC witness Sansom states:

> As a result of its failure to maintain its flexibility under permits, conduct its procurement processes prudently and secure the most economical sources of coal for CR4 and CR5 during the period 1996-2005, PEF passed fuel and fuel-related costs through the fuel cost recovery clause that were excessive by the amount of $134.5 million. (TR 41, 42)

OPC argues that in the early 1990s, PEF and PFC ignored the emergence of PRB sub-bituminous coal as a cost-effective alternative to Central Appalachian bituminous coal. (Sansom TR 41) Further, OPC maintains that PEF's continued use of bituminous instead of sub-bituminous coal was motivated in part "to contribute to its parent company's overall profitability at the expense of its ratepayers." (TR 42)

OPC witness Sansom testifies that PEF designed the boilers for CR4 and CR5 to burn a blend of 50 percent bituminous and 50 percent sub-bituminous coal and that PEF's initial fuel strategy was to receive bituminous coal from the Eastern U.S. and sub-bituminous coal from Western states, in equal quantities. However, when CR4 and CR5 began commercial operation, in 1982 and 1984 respectively, PEF burned only bituminous coal. Though OPC agrees that bituminous coal was more cost effective during the 1980s, according to witness Sansom, by the early 1990s, developments in the mining and transportation of sub-bituminous coals led PRB coal to be a more economical choice than bituminous coal. At this time, other utilities began the shift from bituminous coal to sub-bituminous coal to take advantage of lower fuel cost opportunities that sub-bituminous coal presented. (TR 40, 41)

The entry of the Union Pacific as an originating PRB rail carrier in the early 1990s brought competition to the Burlington Northern railroad, which had been the sole rail carrier in that area until then. This development led to competitive rail transportation east to the Mississippi River and the Ohio River, as well as providing an "all rail" route to the Mobile docks for ocean barge movement to Crystal River. (TR 50-51) At the same time, expansion of the Southern Powder River Basin in Wyoming brought about higher Btu (8,800 Btu) sub-bituminous coals than the 8,150 Btu sub-bituminous coal available in the 1980s. This development meant that fewer tons of sub-bituminous coal would be needed to reach the necessary Btus for the designed bituminous and sub-bituminous blend. (TR 51) Witness Sansom states that in the early 1990s, the cost of PRB coal (8,800 Btu) at the mine was less than $5.00 per ton, and the rail transport cost to the Mississippi River at St. Louis, or lower Ohio River in Illinois was $10 to $12 per ton, including transloading to the barge. (TR 52)

Moreover, witness Sansom testifies that the delivered prices of sub-bituminous coal secured by other companies (Alabama Power, Georgia Power, Mississippi Power, Gulf Power and Tampa Electric Company) were substantially lower than the delivered prices (in dollars per MMBtu) for CAPP coal used by PEF at the same time. Witness Sansom believes PEF ignored the opportunity to take advantage of the fuel savings by using PRB. Sansom states that Georgia Power test burned over two million tons of PRB sub-bituminous coal at Plant Scherer during 1989, 1990, and 1991. (TR 54) Witness Sansom states that Gulf Power's shift to 100 percent PRB coal at Plant Daniel resulted in "dramatic savings." He also notes that Plant Miller, a unit of similar design to CR4 and CR5, saved millions of dollars and did not experience a megawatt capacity derate using PRB. (TR 55) Witness Sansom further states that examples of successful economic utilization of PRB coal were known throughout the electric utility industry in trade press, professional publications, conferences, and technical meetings. Witness Sansom continues that when the utilities conducted solicitations for offers of coal, and received bids from producers of PRB coal, they saw the impact of the economic shifts first hand. (TR 55)

Witness Sansom acknowledges that PEF did solicit PRB coal in 1996, 1998, 2001, 2003, and 2004. He acknowledges that the PEF/PFC evaluated bids received in July 2003, showed PRB coal as the least expensive fuel to use at CR4 and CR5. At $2.02 per MMBtu, PRB sub-bituminous coal was 33 cents less per MMBtu than CAPP bituminous and synfuels, and was 11 cents per MMBtu less than imported coal. (TR 61)

B. Florida Industrial Power Users Group Argument

FIPUG states that the requests for proposals were not serious attempts to solicit meaningful bids for PRB coal. Instead, FIPUG maintains they were simply instruments used to reach the preordained goal of purchasing from PFC's affiliates. (FIPUG BR at 10-11) FIPUG states that staff witness Windham's testimony demonstrated that PEF and PFC paid prices for coal that were 10 to 50 percent higher than the costs paid by other utilities in the southeast. (FIPUG BR at 11) FIPUG also states that the burden of proof regarding its fuel purchases rests on PEF, and that the company has not met the standards previously established by the Commission in Order No. 12645 regarding fuel procurement practices for utilities. (FIPUG BR at 13-16)

C. AARP Argument

Witness Stewart agrees with witness Sansom that PEF either knew, or reasonably should have known, that it could have purchased PRB sub-bituminous coals for CR4 and CR5 at a lower delivered price than bituminous CAPP coal or synfuel from affiliates during 1996-2005. (TR 1103)

D. PEF Argument

In obtaining coal for CR4 and CR5, PFC contracted directly with coal vendors, transportation providers, and transloading facilities. PFC established written coal procurement policies and procedures in 1987 to comply with the PSC guidelines and good business practices. (Davis TR 261) PFC's coal procurement efforts were overseen by the Vice President for Coal Procurement. Under his direction, coal prices were monitored on a continuing basis. (Davis TR 248)

When coal purchases were needed to supply PEF's plants, a competitive solicitation process was employed. RFPs were provided to all coal suppliers on the bidder list maintained by PFC. (Davis TR 260) This list was comprised of over 100 suppliers, including PRB suppliers. In addition, PFC published notices of RFPs in coal industry publications to insure that anyone not on the bidders list had an opportunity to request to be on the list, and to receive a copy of the RFP prior to the deadline. (Weintraub TR 552-553) Coal procurement RFPs always included specifications for both bituminous and sub-bituminous coals, and solicited suppliers and brokers for domestic and foreign coals. PFC states that it treated PRB suppliers the same as it did bituminous suppliers responding to the RFP. (PEF BR at 6) Any coal supplier would be added to the PFC bidders list upon request. (Davis TR 266)

Once bids were received, they were evaluated and ranked, based on evaluated cost or bus bar cost (Davis TR 251) using the Coal Quality Impact Model (CQIM) which was developed by

the Electric Power Research Institute. According to PEF, the model is a recognized industry standard (TR 410) and provides a "paper test burn" of the coal in a specific unit's boiler. (Pitcher TR 374)

After the CQIM analysis identified the leading bids, in most instances, negotiations were then conducted with several bidders offering the lowest evaluated cost coals to obtain further price reductions. (TR 280, 282) PEF stated that it used the same process for all of the RFPs issued over the period 1996 through 2006. (PEF BR at 6) According to PEF, its witness' testimony that its procurement policy and practices were consistent with Commission guidelines was not disputed. (PEF BR at 6)

Noting that witness Sansom stated PEF could have encouraged PRB bids by sending letters directly to the coal producers (TR 1247), PEF contends it "sent seven such 'letters,' i.e. 'RFPs' to PRB coal producers" during 1996-2006 and received bids in response to four. (PEF BR at 7) OPC witness Sansom agreed that the PRB suppliers on PFC's bidders list comprised 70 to 80 percent of the PRB coal market production. (PEF BR at 6)

Witness Davis testified that PFC examined the use of PRB coal regularly, including comparison of its fuel costs to those of Tampa Electric, which burned similar coal at its Gannon plant. Ongoing PFC comparisons showed that Tampa Electric was paying more for sub-bituminous coal than for bituminous coal. Sub-bituminous was not the lowest cost coal offered on an evaluated cost basis. In fact, it was generally not even competitive with other coal options. (TR 252)

Witness Davis testified that PFC's serious interest in PRB coal was evidenced early by a 1998 internal memorandum written by PFC's Vice President for Coal Procurement, Dennis Edwards. After discussing barge versus rail transport plans, he stated, "I believe we should recognize that we will, in all likelihood, be using PRB coals at [CR] 4 & 5 by about 2000 (my guess.)" (TR 287) Also, in 1999, PFC's internal analysis showed PRB would potentially be the most economical by 2003. (EXH 48)

While PEF has explored using a PRB coal blend at CR4 and CR5, it continues to burn only bituminous coal. PEF witness Weintraub testifies that PRB bids in response to recent RFPs have not been price competitive due to increased rail transportation costs. Other coals, including import coals, have lower costs. Witness Weintraub further testifies that PEF will continue to pursue revision of its Title V permit to add sub-bituminous coals and will continue to monitor PRB prices along with bituminous coal prices. (TR 509)

E. Staff Analysis

Staff believes that the overall purchasing methods and approach employed by PEF and PFC were generally reasonable and appropriate. As required by Order No. 12645, PFC's coal procurement practices involved a competitive solicitation process. PEF provided substantial evidence of PFC's formal procedures regarding fuel procurement, including the application of such a competitive solicitation process. PEF asserts that it bought coal based on reliability of supply, coal quality, and the lowest total delivered and evaluated cost. (Davis TR 256; Pitcher TR 366)

An additional requirement of Order No. 12645 is that fuel expenses must be "reasonably competitive in cost or value." In analyzing all coal bids it received, PEF used the CQIM model, an industry-standard bus bar analysis model. (Weintraub TR 495) This analysis allowed PFC to consider heat content, moisture, ash, and other physical characteristics of the coal necessary to determine how the coal would perform when burned at CR4 and CR5. (Davis TR 276-277; Weintraub TR 494-495) OPC argues that this analysis included a boiler performance penalty for PRB coal. (OPC BR at 26; TR 987) Staff believes that the bus bar analysis was appropriate and did not penalize PRB coal.

However, despite having an overall adequate process, staff believes the company could have taken timely action to put PEF in a position to use PRB coal at an earlier point in time. Though the first-ever PRB coal bids were extremely competitive in 2001, PEF failed to take the actions that staff believes could reasonably have followed this development. PEF could have realized that PRB bids may prevail in its next RFP, and that taking actions such as preparing environmental permitting and acquiring a test-burn quantity of PRB coal should begin immediately.

Staff views comparisons by OPC and AARP between PEF's and other utilities' use of PRB sub-bituminous coal with caution. Comparisons between utilities, such as Alabama Power, Georgia Power, Mississippi Power and PEF are problematic. Circumstances and conditions are different for each company, including geographic location, generating capacity reserve margins, dispatch prioritizations, and other factors that impact fuel costs and decisions. The fact alone that PFC and PEF chose to move cautiously regarding a fuel type change, while other utilities more readily embraced PRB coal, does not prove either approach to be inappropriate. Switching coal types is a very important decision. The utility must consider future costs of the new coal, plant performance, transportation costs and constraints, safety, and potential increases in capital and operating costs. (Weintraub TR 503-504, Heller 929-930; EXH 68, p.5; EXH 69, pp.2-4)

The record does not reflect the notion that PEF discouraged bids from PRB suppliers in response to the 1996 and 1998 RFPs. PEF's bid process appears to have been open and competitive. (TR 251) Through PFC's efforts, the option of using PRB coal was monitored and considered by PEF. The evidence establishes a degree of effort and interest on PEF's part in pursuing the sub-bituminous coal option at CR4 and CR5. Staff does not doubt that more effort could have been expended in pursuing the PRB coal option. Staff recognizes that PFC was anticipating the use of PRB by the early 2000s. However, the eventual focus on synfuels appears to have at least temporarily displaced the purchase of PRB beginning in 1999. (TR 287)

Still, PEF and PFC moved forward toward the use of PRB coal at Crystal River with a 2004 test burn that indicated serious interest in this fuel. This interest was influenced by the PRB bids PFC received from its 2003 RFPs. But as noted, evaluation of the bids from the 2001 RFP could have triggered similar interest in PRB by PEF and PFC earlier than 2003.

During the period 1996-2002, PEF issued three coal bid solicitations: in 1996, 1998, and 2001. No PRB coal suppliers responded to the 1996 and 1998 bid solicitations. However, competitive PRB bids were submitted in response to the 2001 solicitation. PEF's evaluation of these bids identified PRB coal as the lowest evaluated cost alternative for a five-year contract. In fact, the most competitive bid received in response to the May 2001 RFP in terms of evaluated

price was the PRB coal bid at two years offered by Arch Coal.[11] (EXH 41) PEF ultimately negotiated a one-year contract for imported bituminous coal after negotiating with bidders who had submitted three-year contract offers. (TR 282) Regardless of the fact that PRB was not selected in the 2001 bid evaluations, staff believes the fact that these PRB bids were competitive could have triggered actions to put PEF in a position to buy this fuel if it should prevail in the very next coal solicitation.

Staff notes that the relative mix of spot versus contract purchases made by PFC on behalf of PEF may have played a role in the emphasis, or lack thereof, given to PRB coal. During the period 1996-2005, PEF's mix of spot versus contract coal purchases varied widely. Witness Davis testifies that PFC considered it prudent to have a "mixture of coal supply contracts by having an appropriate balance of long term, medium term, and 'spot' supply contracts." (TR 264) She also states that the company would evaluate and forecast, using various industry services, "how much of our coal supply we wanted to be on medium-term contracts (such as 18 months to three years) and how much we wanted to purchase on a spot basis during a year." (TR 265)

Witness Davis states that in 2002, two large long-term contracts for bituminous coal expired. (TR 263-264) During this same period, PEF made a procurement and operational decision to burn bituminous synfuel products in its CR4 and CR5 units beginning in 1999. By 2001 and 2003, when spot purchasing peaked, the majority of these spot purchases were for synfuel. In 2001, 66 percent of PEF's coal was purchased on the spot market, followed by 60 percent in 2002, and 55 percent in 2003. (EXH 2 pp.18-23)

In 2004, PFC and PEF made a decision to transition toward a higher percentage of contract-based purchasing. (EXH 2 pp.18-23) An October 2003 procurement memorandum from Al Pitcher states that PFC's "purchase strategy is to eventually achieve a 75/25, 70/30 split between contract and spot." (EXH 56) It appears that PEF did move its procurement approach to an increased portfolio of RFP-initiated contracts. In 2004, 61 percent of the total coal purchases for CR4 and CR5 were made through contracts. In 2004, PFC began reducing the amount of synfuel purchases for CR4 and CR5. In 2005, CR4 and CR5 contract-based purchases increased to 92 percent; in 2006, the total increased to 93 percent. (EXH 2 pp. 18-23)

Witness Davis states that it was not always necessary to conduct an evaluated or bus bar cost if PFC and PEF were familiar with the pool of suppliers, and "with whose coal [PFC] had substantial experience, or on which [PFC] had previously done a bus bar analysis." (TR 278) In contrast, witness Davis states that sub-bituminous coal is a "type of coal in which an evaluated cost or bus bar cost analysis could provide important information." (TR 279) In contrast, witness

[11] The May 2001 RFP required a minimum of 425,000 tons annually. The Arch Coal PRB bid for the 2 year contract was for 2.4 million tons, or 1.2 million tons per year, at an evaluated price of $241.59/MMBtu. The next lowest evaluated bid price was $243.61/MMBtu, a foreign coal bid by Carbones Del Quasare, S.A., a three year contract offered at 1.6 million tons, or 530,000 tons per year. The lowest evaluated bid price for CAPP coal was $251.46/MMBtu, a three year contract offered at 1.425 million tons, or 480,000 tons per year. Three other PRB bids were received at evaluated prices lower than the lowest CAPP coal evaluated price, but all at significantly more tonnage than the minimum requirement. (EXH 41)

Davis states that "it was not practical to subject short term spot purchases to such modeling." (TR 279)

It appears to staff that since PFC did not conduct this type of analysis on spot market purchases, sub-bituminous coal may have suffered from being an unknown quantity during periods when the company emphasized spot market purchases. As witness Davis recognizes, "Progress Fuel Corporation was a substantial purchaser in the spot market," and staff believes this procurement focus could have created limitations that may have affected the evaluation of PRB coals. (TR 268) If this were the case, however, staff believes it did not stem from bias against PRB coals, but from the overall spot/contract mix and factors such as fuel price trend expectations.

The coal procurement processes described by witnesses Davis and Weintraub were consistently applied in keeping with company procedures. PEF and PFC gave consideration to the fuel options available, employing a competitive bidding process and evaluation of bids received. Certainly more than one prudent course of action or option may exist at the same time. As noted by PEF witness Fetter,

> Management decisions in complex areas are rarely "black and white." Rather, there is a range of decision-making that prudent, equally-informed managements could make ... Absent a management decision clearly falling outside this range, there is no basis upon which the regulator should substitute its judgment for that of the utility's management. (TR 164)

1.3 CR-3

1.3.1 Parties Position Statements on CR3

OPC: CR3 was nuclear in 1978, when PEF designed and sought state certification of CR4-5 to burn PRB, and still nuclear in 2006, when PEF applied to modify its federal permits to authorize burning PRB in CR4-5. Only the period 1996-2005 covered by OPC's Petition is the subject of PEF's "CR3 concern." If applicable, prudence would have required PEF to attend to any NRC information requirements at the outset, so that it would be positioned to burn PRB when economical to do so. CR1-2 boilers are far closer to CR3 than are CR4-5 and pose greater risks.

PEF: Part of the evaluation to switch to a PRB blend must include the impact on the operation of the Company's nuclear unit CR3, given the proximity of the PRB coals to the unit and the undisputed characteristics of PRB coals. Were PEF to use PRB blends, as OPC suggests, CR3 would be the only nuclear unit in the United States, and quite possibly the world, that is co-located with a PRB coal plant. Nuclear regulations require evaluation of this additional risk to assess whether CR3 can be safely operated with PRB coal on-site, adding time and expense to the analysis.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: CR3 went into commercial operation in March 1977. CR4 and CR5 came on line years later in 1982 and 1984. At that time PEF proved twice that even if it was possibly the only utility in the world to co-locate a nuclear plant on the same site with PRB coal plants the potential fuel savings to customers justified the nuclear risk and charging customers more money for construction to obtain future fuel savings. The contention today that it is imprudent to give customers the promised fuel savings by using the CR3 nuclear disaster shibboleth must be taken with a grain of salt.

White Springs: CR3 went into commercial operation in March 1977. CR4 and CR5 came on line years later in 1982 and 1984. PEF's efforts to solicit bids from PRB sources and to test burn PRB coal at Crystal River have not been impeded in any manner by the presence of CR3 or its licensing requirements with the Nuclear Regulatory Commission. PEF's conjecture on the results of its as-yet unperformed risk and safety evaluations associated with PRB use at Crystal River, or possible NRC reactions to such assessments, is no defense to PEF's otherwise imprudent actions. The delay of the CR3 staff in undertaking those assessments, however, should be considered a separate instance of imprudence should it delay the use of PRB coals at the site.

1.3.2 Analysis of Parties Arguments on CR3

A. PEF Argument

PEF witness Hatt testifies that PRB coal carries significant risks of fires and explosions, which is primarily addressed below under the topic "CR4 and CR5 Operational Matters." (TR

600-601; EXH 100, 102) PEF witnesses Franke and Miller specifically raise safety and regulatory concerns about burning PRB coal in units sited with a nuclear plant. (TR 801, 803-4; 875)

The Crystal River site has a nuclear unit – CR3 – and four coal units – CR1, CR2, CR4, and CR5. CR3 has a capacity of approximately 838 MW, and came online in early 1977. (Franke TR 804-805) The nuclear unit is subject to regulation by the Nuclear Regulatory Commission (NRC). (Franke TR 809). Both witnesses Franke and Miller testify that there are no nuclear units collocated with coal plants that burn PRB. (Franke TR 803, Miller TR 877)

Witnesses Franke and Miller note that PRB coal is subject to spontaneous combustion, can be explosive, and is dusty. (Franke TR 815-819; Miller TR 875) Regarding spontaneous combustion, witness Franke states the following three concerns:

> The first area is in the ability to protect the nuclear operators who cannot evacuate during a large fire. The second concern is what effect a coal fire might have on the equipment required to operate the plant safely. Lastly, I am concerned by the possibility that this flammable and potentially explosive coal pile might provide an opportunity to an adversary terrorist group which would challenge our nuclear security. (TR 815)

Witness Franke provides an aerial photograph of the Crystal River site. He notes that PRB coal, assuming significant amounts would be burned at CR4 and CR5, would be unloaded at the barge unloader near CR3. The train unloader is also near CR3. The coal would be transferred by conveyor belts to the site's north coal yard, where it would be blended with bituminous coal. Transmission lines cross over the conveyor belts. (TR 805-806; EXH 135, 141)

According to witness Franke, smoke from a PRB coal fire would have negative implications for the operation of CR3. (TR 816) Witness Franke gave examples of fires in the area surrounding other nuclear plants that have caused a loss of offsite power. (TR 816) Smoke from fires could affect the operation of CR3's emergency diesel generators, which are necessary in the event of a loss of off site power. According to witness Franke, given the possibility that PRB coal is explosive, a terrorist force could use the coal to create a diversion. (TR 817) Further, smoke from a PRB coal fire would impair the ability of security guards to protect the site. (TR 817)

Witness Franke believes PRB coal will increase dustiness and provides several examples of NRC Information Notices concerning dirt and dust interfering with electrical equipment. (TR 813). Increases in dust can harm the performance of electrical components, such as breakers and relays. Also, management of increased levels of dust can increase maintenance costs. Increased dust from PRB coal would raise the potential for fires in cable trays. (TR 813, 818) According to witness Franke, the amount of coal dust in the CR3 nuclear unit increased significantly in May 2006, when a blend containing 18 percent PRB coal was unloaded at the Crystal River site and burned at CR5. (TR 831-834)

The NRC requires redundant safety systems, where two trains of the same safety system operate simultaneously to ensure that at least one will function at all times. A "common mode

failure" is a condition that affects both trains of the safety systems such that neither system functions. (TR 817-819) According to witness Franke, dust from PRB coal could potentially cause a "common mode failure." (TR 813, 817-819)

Current NRC regulations require CR3 to have operators in its control room or at remote operating locations at all times. This regulation means the control room must be protected from toxic or radioactive gases. (Franke TR 810) NRC regulations also require off-site power be available to the nuclear unit and backup systems if off-site power is interrupted. According to witness Franke, the reliability of off-site power is a very important safety factor for nuclear plants. (TR 811, 820)

Witnesses Franke and Miller both state that the flammable and dusty characteristics of PRB coal would require PEF to evaluate the risks pursuant to 10 C.F.R. 50.59. (TR 819) This evaluation would involve detailed engineering studies and analyses. If this evaluation shows more than a minimal change in risk from current licensed operation, then PEF would have to submit a license amendment request to the NRC. This process would require comprehensive engineering review and would take a significant amount of time. (Franke TR 819-820, 824, 859; Miller TR 882; EXH 142, EXH 143) If the operator determines that the change will not significantly increase risk, then the operator does not need to seek a license amendment from the NRC. (Franke TR 807-808; Miller TR 880-881)

Regarding the possible future use of PRB coal in CR4 and CR5, Witness Franke states the following:

> After what I have heard about this coal I would not propose we go through the process of evaluating the effect of the coal on the design and license basis of the plant. (TR 830-831)

B. OPC Argument

As rebuttal, OPC witness Sansom testifies that he has visited about a dozen sites where PRB is burned and does not believe the risks associated with PRB coal are unique or particularly significant. He acknowledges "good housekeeping" practices are necessary with PRB coal. (TR 1217) Explosions can occur at coal plants. Witness Sansom cites two examples and states subbituminous coal was not involved. Also, fires can occur at coal yards and at coal mines, including bituminous coal mines. (TR 1217) Witness Sansom believes the concerns raised by PEF witnesses Fetter (sic Miller[12]) and Franke are invalid and misplaced. Moving PRB coal from the unloading areas to CR4 and CR5 is not a serious risk. (TR 1217) Witness Sansom states the following:

> The increased investment and extra operational measures in the coal yard required to burn PRB subbituminous coal compared with bituminous coal were well known when CR4 and CR5 were designed. (TR 1208)

[12] Witness Sansom states PEF's nuclear safety expert is witness Fetter. PEF's nuclear safety expert is witness Miller, and staff believes Miller is the witness to whom witness Sansom intended to refer. (TR 1217, 875-876)

* * * *

> The Crystal River coal yard was designed to blend PRB/CAPP coal at a 50/50 blend. The stacker/reclaimers, the belt scales and drives, and the coal yard control system and conveyor capabilities were installed to blend and supply 330 tph per unit for CR4 and CR5. (TR 1211)

Witness Sansom observes that neither witness Miller or Franke mentions that CR1 and CR2 are located alongside CR3. CR4 and CR5 are farther away. The concern should be with bituminous coal in units near CR3, according to witness Sansom. If this risk of coal explosion has not been raised by PEF or the NRC, then moving PRB coal to farther-away units should not be a concern. (Sansom TR 1217-1218)

C. Staff Analysis

PEF built CR1 and CR2 first at the Crystal River site. CR3 followed and began operation in 1977. CR4 and CR5 were built after CR3. (TR 857) PEF updated its Final Safety Analysis Report (FSAR), an important NRC licensing document, when CR4 and CR5 were built. According to witness Franke, PEF did not tell the NRC that the units were designed to burn a 50/50 blend of bituminous and sub-bituminous coal. (TR 858) The FSAR reflected PEF's expectation to use bituminous coal at CR4 and CR5. The updated FSAR reflected the site's layout, including coal piles, handling equipment and conveyors and the proximity of these features to the reactor building. (TR 858-859) Staff notes both the industry's understanding of the risks posed by PRB coals and nuclear safety standards have changed since the CR4 and CR5 became operational. (TR 843)

Witness Franke acknowledges that bituminous coal can self ignite, but he also suggests that a bituminous coal fire would not be as much of a problem as a PRB coal fire. (852-853, 860) Staff notes that PEF witness Hatt provided evidence that PRB coal has more problems with spontaneous combustion than bituminous coal. (Hatt TR 600; Franke TR 851-853, 860, 864; EXH 100; EXH 101, pp. 3-4) Spontaneous combustion and PRB coal is discussed in the topic "CR4 & CR5 Operational Matters." Witness Franke states the coal yard currently has some fire protection equipment but not a lot. (TR 859)

When the 2004 test burn was planned, staff at CR3 were contacted. The CR3 staff expressed concern and required that the blend with PRB coal be blended off-site. The blend burned during the 2004 test burn had 15 percent to 22 percent PRB coal. (Franke TR 861-862; Pitcher 470-471, EXH 199, p. 1, 4)

PEF witness Miller and Franke testify that, if PRB coal is to be burned at the Crystal River site, then a risk evaluation would be required by 10 C.F.R. 50.59. Neither witness Miller nor witness Franke can say whether this evaluation would lead to the requirement of a license amendment application with the NRC. (Franke TR 819-820, 824, 859; Miller TR 882; EXH 142; EXH 143) Though PEF has planned and carried out test burns of PRB coal, the CR3 staff have not begun a 10 C.F.R. 50.59 analysis. (Franke TR 860-861)

In its brief, OPC states the following:

> At the same time it was preparing the testimony of witnesses on CR3 implications, PEF was also submitting the testimony of its witness Sasha Weintraub, who testified under oath that PEF is actively considering the possibility of moving to 100 percent Powder River Basin coal at Crystal River 4 and 5. (TR 503) (OPC BR at 15-16)

Staff notes, however, that witness Weintraub states the switch to 100 percent PRB coal is unlikely given the distance between Crystal River and PRB coal mines. This distance – over 2000 miles - could compromise supply reliability. (TR 503)

In its brief, White Springs states that CR3 staff was aware that PRB coal was at the Crystal River site in 2004 and 2006. White Springs argues that, if PRB coal would trigger an incremental risk evaluation pursuant to NRC regulations, then PEF already should have performed the evaluation. According to White Springs, delays in performing the evaluation may be a separate instance of imprudence. (White Springs BR at 7-8)

The 2004 and 2006 test burns involved a limited quantity of PRB coal and short-duration burns. Based on the record for this topic, staff believes if PEF committed to long-term use of PRB coal for CR4 and CR5, even in a low percentage blend, then an incremental risk evaluation pursuant to NRC rules would be necessary.

Also in its brief, White Springs states the following:

> In sum, at most Mr. Franke and Mr. Miller's testimonies do little more than describe the NRC rule on risk assessment and possible license amendments. Since none of the assessments Mr. Franke claims must be performed have even been started, there is only conjecture regarding what action (e.g., filing a report, mentioning PRB coal use in the next update to the FSAR, request for a license amendment, etc.) might be required by the NRC. (White Springs BR at 8)

Witness Franke did state, however, that he does not want PRB coal at the Crystal River site given its potential problems. (TR 830-831)

The record shows that PRB coal has unique issues regarding dust and combustibility. Staff is of the opinion this would have triggered an NRC risk evaluation had PEF committed to long-term use of PRB coal at Crystal River. While this evaluation may not lead to a license amendment application with the NRC, it might lead to capital expenditures for dust control and fire protection equipment. The record does not quantify any costs. Staff believes the NRC safety regulations governing CR3 would not preclude PRB coal from being blended off-site and burned at the Crystal River site but PEF might incur additional costs.

1.4 CR4 and CR5 Operational Matters

1.4.1 Parties Position Statements on CR4 and CR5 Operational Matters

OPC: Based on ample historical data, CR4-5 boilers were designed super-conservatively to handle coal having slagging and fouling properties more severe than the 50 percent PRB design basis blend.

Existing blending equipment is adequate, and replacement unnecessary and wasteful.

Because *all* systems were designed and sized to sustain 5 percent overpressure with 50 percent PRB, the only capital costs associated with burning the blend relate to dust and fire suppression, and only to the extent they exceed the equipment that PEF allowed to deteriorate.

PRB can be managed safely through appropriate methods and meticulous housekeeping, matters that prudent management acting in customers' interests would have undertaken to garner savings.

Test burns need not take longer than 2-3 weeks. Moreover, had PEF prudently conducted test burns of the 50/50 design blend when CR4-5 were new, PEF would have been positioned to purchase and burn PRB coal when it became the economical choice.

PEF: Despite the fact that the boilers were designed to accommodate an equal blend of PRB and bituminous coals in the late 70's, the design and construction of the units lack the necessary equipment to safely, efficiently, and effectively handle and operate the units on an equal blend of PRB coals and bituminous coals. State of the art technology for dealing with PRB coal as it evolved through the mid-1980s to today is different from what was known when the units were designed. In addition, many of the additional components which were designed were not actually built. Tens of millions of dollars in capital and maintenance upgrades must therefore be made for the units to burn this blend safely and effectively. Furthermore, to the extent that any components, like the larger boiler, were built into the plant, the ratepayer has received the benefit because the units have produced additional megawatts.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: PEF says PRB coal increases operating costs $2 million. It was imprudent not to spend this to get the promised savings. Witness Hatt testified plant improvements for cheaper coal would cost $61.2 million. Witness Barsin said it would cost nothing. Improvements to utility plants are continuous. They are irrelevant in a fuel cost proceeding. They are base rate items. Even if the cost were needed, were relevant, and the worst case scenario used, the maximum allowed return on a $61.2 million PEF plant upgrade is $6.1 million a year. This authorized return is more than off-set by the annual depreciation charge customers already pay to renew and

replace the two plants. If CR4&5 cost $900 million to build the depreciation charge customers were initially required to pay was $36 million a year. This is 6 times the sum required to cover the highest allowed return on Hatt's estimated plant improvements.

White Springs: White Springs adopts the position of OPC as its own.

1.4.2 Analysis of Parties Arguments on CR4 and CR5 Operational Matters

A. OPC Argument

OPC argues that a change from the bituminous coal that has been burned at CR4 and CR5 to the "design blend" would involve minimal risks. According to OPC, the generators were specifically designed and constructed to burn the design blend of 50 percent bituminous and 50 percent PRB coals. OPC also asserts that its analysis is based on the fact that PRB coal appears on the original design documents, where the "design blend" fuel is comprised of 50 percent PRB coal. As further support for the use of PRB coal at Crystal River, OPC's witnesses describe successful generators located outside of Florida that burn PRB coal in varying degrees. OPC also argues that the Crystal River site is well equipped to blend PRB coal with other coal, based on the original design of CR4 and CR5.

OPC witness Sansom says that bituminous coal was more economical than sub-bituminous coal in the 1980's. By the 1990's, developments in mining and transportation led to sub-bituminous becoming the more economical choice. (TR 40) Throughout his testimony, witness Sansom argues that CR4 and CR5 were designed and constructed to have the ability to burn a fuel blend of 50 percent bituminous and 50 percent sub-bituminous coals in its boilers. (TR 40, 53, 62, 74, 81; EXH 24) He states that CR4 and CR5 are "sister units" to Detroit Edison's Belle River units and Alabama Power's Miller units. He states that all of these plants were designed by Babcock & Wilcox and points out that Powder River Basin sub-bituminous coal has been burned at the Belle River and Miller plants for a decade or more. (TR 47)

Witness Sansom describes some characteristics of PRB coal, and describes the way that electric utilities deal with the different properties of the various coals. He states that in the design of a generating unit the furnace, the pulverizer, and the coal storage and conveyance must accommodate increased tonnage. (TR 44) Witness Sansom then states that the specific equipment components of CR4 and CR5, including all the fuel handling, combustion, and ash handling components, were designed, constructed and built to accommodate the "50/50 blend with no adverse effects, and without the necessity of plant modifications." He notes that "Babcock and Wilcox guaranteed that the units' boilers would operate to specifications if the 'design basis coal' is burned in the boilers." (TR 45)

OPC witness Barsin testifies that the original design for CR4 and CR5 provided a system that is fully capable of storing and blending the PRB coal. Only modest and inexpensive enhancements to provide washdown capabilities would be needed to accommodate use of PRB. (TR 1258) He also says that Babcock and Wilcox guaranteed that the boilers would burn the 50/50 blend of PRB and bituminous coals without slagging or fouling. (TR 1257, 1328, 1355-1364) Witness Barsin describes detailed design process for CR4 and CR5, to guarantee sufficient fuel and to allow for unlimited operation in the overpressure range. Witness Barsin states that

the design criteria for Unit 4 can accommodate steam flow at the maximum continuous rating without operational constraint. He says:

> [Florida Power Corporation also] specified a steam flow, a sustainable continuous maximum continuous rating at a pressure and temperature without any operational constraints. Black & Veatch took that direction from Florida Power Corporation and wrote specifications, and equipment was eventually purchased, installed, and sustained operation achieved over the past 25 years indicate that those objectives have been met. (TR 1327-1328)

Witness Barsin stresses the need to provide for slagging and fouling in the combustion process, and the requirement for increased fuel volume in the boiler and the fuel handling systems. (TR 1270 - 1285) He also addresses the need for dust suppression, and reports that the original dust suppression system has not been maintained. (TR 1287) Witness Barsin was involved in both the research of PRB coal properties and their impact on boilers prior to the design of CR4 and CR5, as well as the actual designing of the units. He claims that the properties of PRB coal were well known and understood when CR4 and CR5 were designed, as were the design parameters necessary to anticipate and accommodate those properties and burn PRB coal successfully. (TR 1257)

B. PEF Argument

PEF asserts that after the CR4 and CR5 units came on line, and before 1996 when OPC alleges that using PRB coal would have provided savings, extensive trade knowledge developed regarding several issues associated with coal from the Powder River Basin. The mineralogy of PRB tends to increase opacity as well as slagging and fouling. (TR 663-664) PRB coal dust accumulations have the potential for spontaneous combustion at about room temperature, in contrast to bituminous coals that require a temperature of 150° F to 200° F. (TR 687-688) If water is added to PRB there is an exothermic chemical reaction, meaning that heat is produced. If PRB remains in storage with no intervention, moisture from the coal itself or from condensate will begin to heat up the coal and smoldering often begins. Smoldering PRB differs from bituminous coal, because if smoldering PRB is doused with water, additional heat generated increases the danger that nearby dust will explode. (TR 672-673)

Multiple documents in the record show numerous industry-accepted standard practices that developed as PRB came into widespread use. A case study presented at the 1994 Power-Gen Americas Conference guides PRB users in avoiding stagnant coal and flow patterns that allow heat to accumulate, leading to the possibility of explosion. (EXH 123, pp. 52-56) Several documents in the record discuss incidents that occurred after both CR4 and CR5 were in service; since standard industry responses to manage these issues were not formulated until the 1990's, they could not have been included in any consideration or design prior to 1985. (EXH 107, 108, 110, 113, and 123)

PEF witness Toms provides a description of the day-to-day operations at CR4 and CR5, and the factors that are crucial to the units operating with the performance reliability that they have exhibited. He says that particle size of the fuel entering the boiler is crucial -- the smaller the better. He explains that feeding excess coal into the pulverizer will clog the pulverizer. He

relates his experience that five pulverizers are not sufficient to maintain the units at full capacity. Alternatively, the fuel grind might be set for a larger particle size in order to increase the flow through a pulverizer, but the pulverizers must grind to a particle size that does not slag the boiler. (TR 738-744) As PEF has recounted in its brief, the CR4 and CR5 units are capable of burning a wide range of coals, and customers have received consistently high levels of megawatt output from these units operating at overpressure with 100 percent bituminous coal. (PEF BR at 31) Witness Toms explains that his knowledge of the units is "based on running them 365 days a year." He further describes his experience: "I have also seen these units operate in various conditions and in situations where equipment was down for maintenance, and I know what they are capable of doing in real life, not in theory." (TR 725)

PEF witness Hatt provides an assessment of the "sister units" concept used by the OPC witnesses. He explains that the similarities in design may be limited to specific sections of the equipment, such as the boiler. Witness Hatt states that the coal-yard situations of the "sister units" are completely different from Crystal River coal yard. Further, as to the matter of "similar design," witness Hatt uses the illustration of two cars of the same make, model, motor, and drive train that could have significant performance and maintenance differences, as when one car is a "lemon." He says that similar differences can exist between "sister units." (TR 646)

PEF witness Hatt attempted to quantify the conversion cost for bringing the CR4 and CR5 units up to an operating level that would meet industry accepted standards for managing PRB coal. This work was a direct response to the allegation that a switch to "design basis fuel" blended on-site could be made "with no adverse effects, and without the necessity of plant modifications." (TR 45-46) Witness Hatt explains that he "included costs to account for the capital upgrades and additional maintenance necessary to do on-site blending, as Mr. Sansom alleges PEF should have been doing." (TR 644) He explains some operational concerns addressed by his evaluation: the chemistry of PRB coal mined today is different from the PRB coal available when the boilers were designed. The current PRB fuels have a higher Btu content, but the fouling characteristic is worse. He advises that fouling is more gradual than slagging, and gradually impacts efficiency and load. In addition, fouling can completely clog the boiler tubes and cause long outages. Witness Hatt estimates capital costs at more than $60 million, with associated O&M costs of about $2 million annually. (TR 630-631, 651, EXH 106)

Witness Hatt cautions that subtle changes can be costly. For example, if any change results in a 1 percent decrease in boiler efficiency, an increase of about 1 percent in the Btu input will be needed to maintain generation. There will be an automatic increase in cost that amounts to 1 percent of the annual fuel bill. He puts the "present year's fuel bill" at $291 million, so that 1 percent equates to a cost increase of $2.9 million per year. (TR 632)

Since 2001, PEF has addressed the use of PRB at a low percentage, blended off-site. Test burns were made in 2004 and 2006. (EXH 76, 198) In 2005, the Strategic Engineering division of PEF conducted an in-house investigation into possible savings that might flow from using PRB. (EXH 68, 69, 70, 71, 72, 73, 75) Also, the firm of Sargent & Lundy was hired to perform "high level" evaluation of PRB use at CR4 and CR5. (EXH 74)

In its brief, PEF pointed out that OPC witnesses agreed that additional capital equipment and O&M items were needed to safely handle PRB coal and blend it on-site at Crystal River.

(PEF BR at 28) Witnesses Hatt, Barsin, and Putman differ as to the amount of the cost for additional items. Additional capital items are mentioned. PEF argues that the testimony of witness Hatt on cost is the most reasonable and should be accepted. (PEF BR at 28)

C. Staff Analysis

CR4 came on line in 1982, and CR5 followed in 1984. From the outset, these units have had high availability and capacity factors, consistently and dependably generating low cost electric energy using bituminous coal. In staff's opinion, any differences between the fuel that has been used and a fuel newly introduced might affect the operations at Crystal River, and particularly the operations at CR4 and CR5. Staff believes the impacts of two fuels are contrasted in this analysis: the bituminous coal that has been burned and is associated with the history of high performance, and the "design blend fuel" that is 50 percent PRB coal. Staff also addresses the possibility of bringing PRB coal on site for blending with another coal, as originally planned.

OPC alleges evidence in support of the fuel change it claims would have been cost-effective. OPC witnesses allege that the design of CR4 and CR5 supports the presumption that a change to the "design blend fuel" can be made with minimal impact on the operations at CR4 and CR5. (Sansom TR 1207) OPC refers repeatedly to the "sister units" of Belle River near Detroit and Miller Plant in Alabama. (Sansom TR 47, Putman 1392) Witness Sansom explains that all these boilers were designed together, including CR4 and CR5, and he recounts some details regarding the way the boilers are designed to accommodate burning PRB. (Sansom 47, 1215) PEF witness Hatt, however, argues that OPC's witness Sansom "provides an ultra-simplistic explanation of the differences" associated with handling and using PRB coal, from an operational and safety perspective." (TR 645) Staff believes that Witness Hatt's interpretation is more creditable than Witness Sansom.

OPC's opinion on the operational affects of burning a PRB blend at CR4 and CR5 was based on design documents that included PRB coal as a possible fuel, along with Illinois coal or high Btu bituminous coal. (Barsin TR 1274-1275, TR 1290) OPC relied on the fact that "sister units" of similar design and vintage have burned PRB coal. (Sansom TR 47) Staff believes the record does not reflect sufficient evidence addressing details regarding the combustion technology for the generators at Crystal River or similar units at other locations. There is no comparison of the capacity factors or availability among the generators. While the generating performance of CR4 and CR5 were provided in the record, staff does not have sufficient information that would allow for any comparison with the alleged comparable units mentioned by OPC witnesses. Although these units might have been similar in design and performance some time decades ago, the units are not necessarily similar now. Staff believes that the assessment of PEF witness Hatt is valid as it relates to the operational and safety issues that have come to be associated with handling and using PRB coal.

Staff is of the opinion that the issues of pulverizer capacity, burn rate, and capacity factors for those sister units are not sufficiently addressed in the record. These factors are critical factors by which to compare generating units. For example, staff believes it would be important to know how components of those comparable units work together in such functions as fuel storage, feeding and processing, or whether the fuel is drier or the particles are larger at the

boiler entry point. The information provided indicates that some units do manage PRB successfully, according to their needs and requirements, but it is not possible to make a direct comparison between the alleged comparable units and CR4 and CR5 and how they would incorporate PRB coal in a cost effective manner.

The facilities for CR4 and CR5 at Crystal River were designed and installed before 1985. (Barsin TR 1271; Toms TR 706) OPC witnesses assert that the installed equipment has been suitable for storing and blending PRB coal as fuel for generating electricity from the in-service date through 2006. (Sansom TR 40, 1208, 1211) OPC alleges that the capability of CR4 and CR5 to use a 50 percent blend of PRB was guaranteed in the design documents. (Sansom TR 45; Barsin TR 1255; EXH 6, p. 2 & 5; EXH 4, p. 6) According to OPC witness Barsin, in his experience the entire projected performance document was treated as a guarantee. He asserts that the attorney for his company told him it was a guarantee. (TR 1357-1359; EXH 193). OPC asserts because the guarantee is part of the document, PEF should be able to operate CR4 and CR5 at overpressure and produce the same MW output as PEF produces with the bituminous coal now being burned. (Barsin TR 1255-1256)

There was much dispute over whether the document in its entirety was a guarantee, as OPC claims, or whether the guarantee applies only to portions of the document appearing in columns that bear the term "GUAR". (TR 1361-1364 and 1371-1372) OPC witness Barsin also stated that the contract documents in their entirety would constitute the total performance guarantee. (TR 1356-1357) Since the entire set of contract documents is not in the record, staff will only address the documents that are in the record.

According to OPC witness Barsin, Exhibit 193 is a guarantee document (TR 1264-1265), and CR4 and CR5 were guaranteed to perform at 105 percent overpressure using a 50/50 blend of coal and still obtain generation of 750 MW and 775 MW. However, the term GUAR, which staff believes is an abbreviation of the word guarantee, only appears above two columns on Exhibit 193. Both GUAR columns of that exhibit relate to output of 665 MW, the name plate rating. Staff concludes then that the guaranteed performance of the 50/50 blend was at the name plate rating of 665 MW.

Moreover, PEF witness Toms provides descriptions of the day-to-day operations at CR4 and CR5, and the factors that are crucial to the units operating with the performance reliability that they have shown. For example, witness Toms reports that if fuel rating falls lower than the range of 11,000 to 11,300 Btu/pound, CR4 and CR5 are not able to operate at overpressure. (TR 725) He explains that particle size of the fuel entering the boiler is crucial -- the smaller the better. (TR 744) He states that in his experience five pulverizers are not sufficient to maintain the units at full capacity. Alternatively, the fuel grind might be set for a larger particle size in order to increase the flow through the pulverizer, but the pulverizers must grind to a size that does not slag the boiler. (TR 738)

Staff believes that the testimony of witness Toms is persuasive. In comparing the experience recounted by witness Toms to the assertions made by witnesses Sansom and Barsin, there are different views as to the performance to be expected from CR4 and CR5. Although witness Barsin's explanation of his design, along with the calculations provided, might lead to a presumption that five pulverizers are adequate to supply either of the CR4 or CR5 units, the

experience of witness Toms contradicts that presumption. Based on actual operating experience, witness Toms says that with only five pulverizers available, the units cannot produce the expected 750 or 775 MW. (TR 738) The record indicates that particle size and silo capacity (or through-put) limit the production of the utility. Witness Barsin's testimony addresses design calculations. It does not sufficiently address particle size, or show why limits on silo capacity would not curtail the steam production. The information provided by OPC's witnesses does not provide sufficient actual data for comparison with any operation other than Crystal River. Witness Putman's comment regarding Plant Daniel reverting to high Btu fuel in order to return to full load generation implies that the Plant Daniel units have not operated at a high capacity factor when fueled with PRB coal. (TR 1404-1405) However, the evidence shows that CR4 and CR5 are routinely high in the dispatch order and generate at a high capacity factor.

Witness Hatt's example of "identical cars" that have very different performance demonstrates the insufficiency of witness Barsin's and witness Sansom's testimony on the comparable units. (TR 646) Staff believes the record does not sufficiently reflect the pertinent issues that would go to an understanding or conclusion that similar operation should be expected between the "sister units" and CR4 and CR5. Staff is persuaded that the expectation for a simple "swap" from the higher BTU coal to the "design basis fuel" is not a reasonable expectation.

Staff does not believe that the record supports the position that blending the "design basis coal" at Crystal River, and then burning that blended fuel for power generation at CR4 and CR5 should have been done since 1990. Issues of safety and cost are relevant to this analysis. Current industry standards, as indicated in testimony and exhibits of PEF witness Hatt, are designed to manage the explosive characteristics associated with PRB coal. (EXH 108, pp. 1-4) Staff believes that PEF would need to bring the Crystal River site up to current operating standards for handling PRB coal if that material were to be blended on site.

While staff believes that burning a 50 percent blend of PRB and bituminous coals would cause operational difficulties, staff believes that burning a lower percentage blend appears to be a viable option. A test burn of lower percentage PRB was conducted in 2004. (TR 641, 646-647) The blending was done off-site. (EXH 124, p. 2) The 2004 test burn was not completely successful. (Pitcher TR 395, Hatt 639) The PEF Strategic Engineering Group investigated the possibility of using PRB as fuel for CR4 and CR5 and issued a report which indicated that using PRB blended off-site at less than 30 percent and delivered by barge would offer substantial savings and fuel flexibility. (EXH 75, p 6) The report concludes that a blend with bituminous coal and less than 30 percent PRB coal will act like bituminous coal. (EXH 75, p 17) The report predicts savings for the years 2007-2010 from a 20 percent PRB blend, based on a high level of costs. Some expensive items, such as water cannons and sootblowers, would be necessary capital additions. (EXH 73, 75) Witness Hatt also indicated that PRB coal at blends under 25 percent could likely be used. Dust control would be necessary with the lower percentage blend, but capital investments are much lower when blending is offsite. (EXH 70, p. 12)

In 2005, PEF hired Sargent & Lundy to assess the use of PRB coal at CR4 and CR5. (TR 639) That study indicated that a blend under 30 percent was likely to prove cost effective. Blending offsite was recommended in that report as well. (TR 643, EXH 74, p. 3) The report

recommends some equipment additions and modifications to go forward, and includes a confidential assessment of cost for material and installation. (EXH 74) In 2006, PEF successfully completed a short term test burn of a lower blend of PRB (20 percent) and bituminous coal. (TR 508)

Staff agrees with PEF that the performance of CR4 and CR5 must not be compromised. The percentage of PRB that could be used in CR4 and CR5 remains unanswered. The answer to that question requires using the blended fuel in the units while maintaining the unit performance needed for dispatch. To date, the evidence indicates that CR4 and CR5 will be able to maintain availability and capacity while using a low percentage of PRB coal. The studies have all assumed that blending will be done off-site, and staff is in agreement with that assumption. Other issues, such as transportation costs, are critical to the economic advantage that might be offered by using PRB coal, and the question of utilization must be resolved in order for PEF to take advantage of any developing opportunities for savings.

1.5 Megawatt Capacity

1.5.1 Parties Position Statements on Megawatt Capacity

OPC: The limiting factor on CR4-5 megawatt production is "5 percent overpressure," the maximum safe boiler operating pressure. At 5 percent overpressure the turbine produces the same megawatts, regardless of the fuel being burned. CR4-5 were explicitly designed and built to supply, without limitation, 5 percent overpressure steam to the turbine when burning the 50/50 blend. As specified and built, all systems, including the six pulverizers and the coal supply system, have ample capacity to sustain 5 percent overpressure. Before OPC filed its petition, PEF's consulting engineers assessed the units and predicted no derating below 70 percent PRB blend.

PEF: CR4 and CR5 have consistently produced 750 to 770 gross megawatts, because of the bituminous coal burned in the units. This production will not be possible with the lower Btu content of a 50/50 PRB and bituminous blend. The Black & Veatch and Babcox and Wilcox documents for these units do not provide a guaranteed megawatt output when burning the design sub-bituminous and bituminous coal blend. The only arguable guarantee beyond unit efficiency is for a steam output which produces 665 megawatts, the nameplate ratings for the units. It would cost millions of dollars to replace these lost megawatts.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: Evidence offered by OPC indicates there would be no substantial derating that would off set the anticipated fuel savings that arise from selecting a less expensive coal supply.

White Springs: White Springs adopts the position of OPC as its own.

1.5.2 Analysis of Parties Arguments on Megawatt Capacity

A. PEF Argument

PEF witness Toms testifies that CR4 and CR5 regularly produce between 750 and 770 megawatts (MW) at full capacity. (TR 707) He also explains that the units are base load units, meaning that these units are the ones most likely to be called upon to provide energy. Except for the nuclear units, these units provide electric energy at the lowest incremental cost available to the utility. (TR 706-707) After meeting the power needs of the units themselves, the net energy provided for customers is about 735MW and 732 MW respectively. (TR 707)

Witness Toms further testifies that, for each of the units, the boiler and associated turbine were designed for a gross production of 665 MW at full capacity, under perfect conditions. The design included a guarantee based on fuel comprised of 50 percent western sub-bituminous coal and 50 percent eastern bituminous coal, with a heat rating of 10,285 BTU/lb. (TR 707) This information is evident in the original design documents relating to CR4. (EXH 126, pp. 1-6)

Witness Toms explains that using coal that has a heat rating of 12,000 BTU/lb or more results in steam flow greater than the quantity necessary to generate 665 MW. (TR 708) The steam turbine is designed for unlimited operation with the steam pressure at 105 percent of the pressure that would be associated with generation of 665 MW. Operating at 105 percent of the design pressure is called "overpressure" operation, and gross generation of 750 MW to 770 MW is reliably obtained. (TR 709-710) The overpressure operation is included in the unit design documents, and is designated the "maximum continuous rating." (EXH 126, p. 6)

Witness Toms further explains that the CR4 and CR5 units are able to generate the output of 750 MW or more by using the larger boilers that were originally included in the design as an accommodation for a fuel having the lower heat rate of 10,285 BTU/lb. (TR 708) He states that any change in fuel characteristics is expected to impact reliable operation of the units. Specifically, fuels having BTU content lower than 11,000 BTU/lb have not provided sufficient heat input to allow the units to operate at the overpressure condition. (TR 713) Unit performance is a major concern in the consideration of PRB coal. (TR 717-723)

B. OPC Argument

In his prefiled rebuttal testimony, OPC witness Barsin testifies that CR4 and CR5 were engineered, designed, and constructed so that output is not compromised by burning the design blend fuel. He testifies that burning the 50/50 blend of bituminous and sub-bituminous coal would have provided the same megawatt output as the bituminous coal produced during 1996-2005. He also says this level of performance was guaranteed. (TR 1255) Witness Barsin explains that he was involved in the actual designing of CR4 and CR5, and that the properties of the sub-bituminous powder river basin (PRB) coal were well known and understood by the time the units were designed in the late 1970's. (TR 1257, 1271)

Specifically, witness Barsin lists primary factors incorporated into the design of the units to accommodate PRB coal. These include provision for a sufficient amount of fuel (TR 1265) as well as the ash characteristics of the fuel, and combustion air requirements. (TR 1266) He provides some details regarding the methodology by which experiments in the research laboratory are utilized to develop an index. The index forms a technical basis for equipment designed to successfully manage the potential for slagging and fouling in fuels. (TR 1270-1278) Throughout his testimony, witness Barsin speaks of the furnace and boiler design in the units being taller, wider, and deeper to manage the slagging and fouling characteristics of the PRB component of the design basis fuel. (TR 1266, 1272-1278, 1292-1295)

Witness Barsin provides detailed information regarding the design of the pulverizers and fuel handling equipment. He states that, as designed, five pulverizers are adequate to provide a sufficient quantity of fuel rated at 10,285 BTU/lb to support steam flow at the 105 percent overpressure setting, which is the highest pressure that the unit is designed to run. The sixth pulverizer (for each unit) was provided as a spare. (TR 1303)

In the initial testimony in this docket, witness Sansom explains how he reviewed the prices paid for fuel for the coal units at Crystal River. (TR 39) He explains that "PEF designed and constructed Crystal River Units 4 and 5 to have the ability to burn a blend of coals consisting of 50 percent of bituminous coal and 50 percent of sub-bituminous coals in its boilers." (TR 40)

He describes differences in bituminous and sub-bituminous coals, including characteristics that require increased care in regard to storage, and differences in sulfur composition. (TR 44) He goes on to enumerate differences in design and operation of units, depending on the type of coal to be used. These include operating and maintenance procedures tailored to the type of coal. For a unit that will burn sub-bituminous coal, larger boiler size and upsized capacity for pulverizers, storage and conveyance facilities are needed. (TR 44) Witness Sansom explains that CR4 and CR5 units were designed and intended to burn 50 percent Western (PRB) coal with no adverse effects. (TR 45-46) He further explains that the units are "sister units" to the Babcock and Wilcox installations at Belle River near Detroit and Alabama Power's Miller unit four. The Detroit Edison and Alabama Power plants have been burning PRB sub-bituminous coal. (TR 47)

Based on his understanding that CR4 and CR5 would be equally able to burn the 50 percent PRB fuel, witness Sansom analyzed the "delivered cost" per unit of heat, or BTU, for the candidate fuels. He states that PRB coal was not a competitive candidate fuel compared with Eastern bituminous coal because of delivery issues in the 1980's. (TR 48) Witness Sansom describes two difficulties associated with the PRB coal: a low BTU content and difficulties with transportation. (TR 50) Based on his evaluation of delivered costs for candidate fuels, he concludes that PEF should have realized that PRB was an economical fuel to use by 1996. (TR 41-42) He testifies that over the years 1996-2005, PEF fuel purchases favored affiliates at the expense of the ratepayer. (TR 56-57, TR 77) He states that "...a prudent PEF would have burned the 'design basis' 50/50 blend of sub-bituminous and bituminous coals during the period in question." (TR 91)

Although the design of CR4 and CR5 included design calculations for burning a 50 percent blend of PRB coal with a heat rating threshold of 10,285 BTU/lb, the acceptance performance testing for each of the units involved bituminous coal exclusively. Witness Barsin explains that the vendor was released from contractual obligations based on the test burns with bituminous coal. (TR 1291) The test burn results for CR4 show a corrected efficiency rating of 88.88 percent, compared with the Babcock and Wilcox design guarantee of 87.69 percent. (EXH 194, p. 3) Witness Barsin recognizes that the capability for either of the units to utilize a fuel blend comprised of 50 percent sub-bituminous coal has not been proven to date. (TR 1291) He points out that the 5 percent overpressure is the actual limit of the system by design. The functional capability of the units to utilize any particular fuel depends on the amount of steam that the system can produce from the fuel. (TR 1302)

C. Staff Analysis

Staff believes that OPC fails to recognize the risk of a derate associated with the proposed change to a fuel blend comprised of 50 percent PRB coal from the fuel that PEF has historically utilized. In staff's opinion, it is clear that some risk would be involved. Because the CR4 and CR5 units are baseload, must-run units providing low cost power on a first-call basis, any action that causes a reduction to the generation output of CR4 and CR5 would necessarily be replaced by generation that is more costly. Staff believes the continuing reliable operation of CR4 and CR5 is of paramount importance. Witness Toms testifies that the basic issue in the operation of these units is reliable generation:

> [T]he biggest concern for me in terms of operation of Crystal River 4 and 5 is a potential derate. The company's energy control center expects me to run these units to get 732 and 735 net megawatt output. (TR 727)

Witness Toms explains that the units have historically operated at overpressure to produce 750 and 770 MW gross when called upon, providing about 732 to 735 MW to meet customer demand. (TR 707) He attributes this high output to the larger boilers in these units, allowing for more coal to be burned. (TR 724) He testifies that the customers have gotten the benefit of increased output from the units. (TR 725) Under cross examination, Mr. Toms testified that he cannot achieve an output of 750 megawatts with only five pulverizers operating. He explains that changing particle size to increase feeder speed tends to slag the boiler. (TR 738) He later says that, as to particle size, "smaller is better". (TR 744)

PEF witness Davis explains that PEF was aware of PRB coal in the period 1996-2002, and examined it regularly. She states that, if PRB coals were to be used, PEF saw potential for derating and additional costs because of the difference between that fuel and the bituminous coal. (TR 301) Witness Davis testified that she worked closely with Mr. Dennis G. Edwards, who was VP of Coal Procurement and that he looked at PRB many times. (TR 331) Then witness Davis describes discussions with Mr. Roy Potter, who was manager of technical services and performed the quality analysis of coals to be used at Crystal River. (TR 348) She explains that he was very highly regarded for his coal analysis, and that he responded to her inquiries with an explanation that burning the lower quality PRB coal would derate the boilers. (TR 348-349) Witness Davis provides documents that demonstrate that PEF continued to monitor PRB coal for potential future use in the 1996 through 2002 time frame. (TR 286; EXH 46, 47, 48)

In support of its position that there would be no derate with the design blend, OPC offers testimony of the design engineers, testimony regarding the operation of similar units, and exhibits consisting of portions of the original contract documents. As evaluated below, staff believes these are not conclusive evidence that CR4 and CR5 would continue to operate at 750 to 770 MW capacity if a 50/50 blend of coal were used.

The similar units that were discussed by OPC witnesses Sansom and Putman, along with the descriptive information provided by the witnesses, do not provide a sufficient basis to assume that they are identical to CR4 and CR5 with regard to design or performance. (Sansom TR 47; Putman TR 1394-1407) While the units may be the same or similar vintage, the record is limited as to evidence of capacity rating, efficiency, and performance of those units. Similar design of units is just one of a multitude of factors that might contribute to similar or dissimilar performance of those units at the present time. The record does not address how the comparable units rank within the dispatch of their native generation fleet -- except for the information that Plant Daniel was not called on as much as other plants. (TR 1405) In staff's opinion, it would be a matter of speculation to draw an inference about how experience at any particular plant might be similar to, or dissimilar from, the expectations for PRB coal use at Crystal River.

The testimony provided by OPC witness Barsin is very detailed in regard to the efforts made within the original design to provide a sufficiency of fuel, as well as accommodations for slagging and fouling factors associated with PRB coal. However, there is not sufficient evidence of a "guarantee" of gross generation in a range of 750 MW to 770 MW, without regard to the

fuel that might be involved. Notwithstanding the extensive effort described by witness Barsin to design a unit that would run well using the PRB blend, the record documents show the term "guarantee" only on the projected performance associated with steam flow of 4,737,900 lb/hr at 2500 psig and 1005 degrees Fahrenheit. (EXH 126 p. 6, EXH 194 p.7) The same documents confirm that the steam is to be supplied to a turbine rated at 665 MW. (EXH 126, p. 2; EXH 194, p.1) The contract documents included with the "Projected Performance" information make no mention of output beyond 700 MW. (EXH 126, EXH 194) Staff believes the guarantee of 665 MW gross generating capacity burning the 50 percent PRB fuel blend is evident in the record. In addition, the record reflects that the steam equipment, as installed, is designed to operate without any time limit at pressures 5 percent greater than that required for the 665 MW nameplate capacity.

Witness Barsin provides information regarding the possible changes that would be needed to burn PRB at Crystal River. (TR 1337-1347) He mentions using rubber-tired equipment, which is in line with witness Putman's mention of that change and other new work procedures. Witness Barsin explains that replacing equipment that has worn or rusted out, and ongoing housekeeping requirements will add some costs. (TR 1375) Various OPC witnesses indicate that estimates made by PEF's witnesses as to necessary changes and associated costs are not correct. (TR 1331, TR 1397) No allowance for any necessary costs associated with incorporating PRB into the fuel at Crystal River is included in the calculations of savings lost provided by witness Sansom. (EXH 28, EXH 181)

As witness Barsin acknowledges, PEF's acceptance of CR4 and CR5 and release of the vendor was based on tests with a high Btu coal exclusively. (TR 1291) While the witness expresses a concern regarding wasted spending for the increased costs relating to design and construction to accommodate PRB, the record has little information to directly compare these units in another design configuration. It is possible, perhaps probable, that the excess capacity and other design factors have all been essential in the efficiency and high production of these units since they came on line.

PEF has recently pursued the question of incorporating PRB in the fuel stream at CR4 and CR5. From 2003 to present, the company has conducted some test burns and engineering evaluations. (TR 410-412, EXH 60, EXH 74, EXH 199) The test burns included fuel blended off-site, and at levels under 25 percent. To date, the documented records associated with PEF's activities do not provide conclusive results, or indications, that a derate is unavoidably associated with the use of PRB.

In summary, the record lacks information to support an expectation that PEF could have converted the fuel for CR4 and CR5 to a PRB blend without any risk of loss of capacity. In particular, the record does not support the concept that using a 50 percent blend of PRB would be virtually interchangeable with the fuel that has been successfully utilized since these units came into service. Staff is persuaded that a sizable derate would likely result from use of a blended fuel composed of 50 percent PRB at the CR4 and CR5 units.

If PEF burned a blend with a lower percentage of PRB coal, the risk of a derate to these base load units may still be present. For example, the test burn at CR5 with a 22 percent PRB coal blend experienced a loss of 30 MW. (TR 641, TR 647; EXH 199, p. 3; EXH 24, p.3; EXH

124; EXH 76) PEF's May 2006 test burn of PRB at an 18 percent blend at CR5 resulted in no substantial issues and full load was achieved. (TR 508) Staff notes that the Sargent and Lundy Study concluded that it was probable that a full load could be achieved (i.e. no derate) at CR4 and CR5 with PRB coal blends less than 30 percent. (EXH 78) Witness Hatt's assessment was that achieving full load using a 30 percent blend of PRB coal was a possibility, and the only way to know for certain would be to conduct a long term test burn. (TR 678)

1.6 Coal Availability and Costs

1.6.1 Parties Position Statements on Coal Availability and Costs

OPC: PRB coal was available to PEF in large quantities and at costs significantly lower than alternatives during 1996-2005. Pertinent market information was disseminated widely in the utility industry at the time. Actual purchases of PRB to TECO, adjusted for delivery to Crystal River, provide an accurate picture of the opportunity that was available to PEF (but not acted on) during the period, as do bids submitted to PEF by PRB producers in 2003 and 2004. The notion that the same PRB producers who were marketing aggressively elsewhere elected to bypass CR4-5 simply is not credible.

PEF: PEF cannot purchase what it is not offered. Although PEF's RFPs included specifications for sub-bituminous coal, and these RFPs were sufficiently available to the market, in some years no PRB bids were received. Even when PEF received PRB bids, prior to 2004, PRB coal, on a delivered and evaluated price basis, did not compete with the bituminous coal PEF purchased. PEF reasonably and prudently evaluated PRB coal using the existing market proxy for waterborne transportation costs in place for water deliveries of coal for all Crystal River coal plants. When PRB coal appeared economical, PEF began a more thorough evaluation.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: The evidence presented by OPC and Commission Staff shows unequivocally that PRB and foreign coal was available. The evidence shows that other utilities found and bought less expensive coal. Progress Fuels appears to have done no more than advertise its interest. The existence of the Progress Energy holding company structure belies a real interest in competitively priced fuels. Miners know it and react accordingly. The holding company structure provides a disincentive to seek cheaper coal from non affiliated companies.

White Springs: White Springs adopts the position of OPC as its own.

1.6.2 Analysis of Parties Arguments on Coal Availability and Costs

Cost and Availability

A. OPC Argument

OPC's witness Sansom presented the numbers of tons of PRB coal produced by year from 1992 to 2005 in his Exhibit 7. Over the 1992 to 2005 period, production increased steadily from 200,000,000 to over 425,000,000 tons. (EXH 7) During the 1996 to 2005 period, PRB coal producers were in an over capacity situation. (TR 1229)

The situation was reflected in PRB coal prices in the 1990's, when Southern Company found it economical to convert ten of its coal units to PRB coal units. (TR 1420, 1423) Witness Putnam testified that during his employment with Southern Company in the 1990's, he worked on converting several coal burning units in Alabama, Georgia, and Mississippi to PRB coal

burning units (TR 1421), that some of the most competitive bidding competitions he experienced at Southern Company involved PRB opportunities, (TR 1423), and that Southern Company and its utilities were "covered up with coal people ... begging us to come visit the PRB region and to their mines so we would consider their coals." (TR 1422-1423)

B. PEF Argument

PEF's witness Heller also presented spot prices in dollars per ton for 8,800 Btu/Lb PRB coal for 1994 to 2006 (EXH 80) and annual spot prices for 8,800 Btu/Lb PRB Coal for 1996 to 2005. (EXH 84, Column 1)

Annual Spot Prices of PRB Coal	
Year	$/Ton
1996	5.00
1997	4.36
1998	4.01
1999	4.63
2000	4.54
2001	4.66
2002	11.30
2003	7.08
2004	6.09
2005	6.57

PEF evaluated its potential coal purchases on a delivered price (including transportation costs) basis, and a busbar ("evaluated") basis, accounting for coal quality characteristics on unit performance, and considered other factors such as transportation and supply reliability. (TR 374) This "busbar" evaluation is necessary to determine how the coal would perform when burned at CR4 and CR5. (Davis TR 276-277; Weintraub TR 494-495) PEF used a standard industry model for evaluating coal. (Weintraub TR 495) PEF notes that CR4 and CR5 are base load units and that the coal supply and consistent energy production are essential. (TR 724) PEF included PRB coal suppliers in all RFP's and was aware of possible supply disruptions and cost impacts from burning a 50/50 blend of PRB/CAPP coal, including a potential megawatt derating. (TR 410, 518, 301) PEF first received offers from PRB suppliers in 2001, and began making PRB coal evaluations. (TR 301, 978) Starting in 2001, PEF began receiving PRB bids. Based on evaluations of those 2001 RFP responses, PRB coal was not competitive. (TR 977) PEF made similar evaluations following its 2003 RFP, with different conclusions, and made test burns of 18 to 22 percent blends in April 2004. (TR 393-394) PEF made further test burns in 2006 and concluded that by then, PRB coal was more expensive to burn than its then present supply. (TR 509) PEF maintains that its process was reasonable and prudent. (PEF BR at 13)

PEF pointed out that witness Sansom's delivered price analysis is flawed because 1) the prices are not from the same period, 2) TECO's transportation costs do not include Gulf terminaling transloading, and 3) TECO's transportation costs do not include PEF's waterborne proxy. (PEF BR at 14) PEF pointed out that witness Sansom's analysis also excluded

considerations for capital and O&M costs that would have been necessary had PEF changed its coal supply to a 50/50 blend. (PEF BR at 18) PEF defended its assertion that additional blending costs for PRB coal would have been incurred by using a 50/50 blend. (PEF BR at 19)

PEF pointed out that although witness Sansom based his overcharge calculation on using the supply route through New Orleans, he claimed that using the route through Mobile, Alabama would have been more economical (PEF BR at 20), but that none of the OPC witnesses offered defensible evidence to support that claim. (PEF BR at 21) PEF relied in witness Heller's interpretation of witness Sansom's analysis. Witness Heller concluded that had PEF burned a 50/50 blend of PRB/CAPP coal from 1996 to 2005, recovered transportation costs using the waterborne proxy, and included blending charges and capital and O&M costs, it would have in fact paid $51 million more in coal costs. (EXH 85)

C. Staff Analysis

Based on the information presented by witness Sansom regarding PRB coal production and the testimony of witness Putman regarding the efforts of PRB coal producers to make coal available to customers, staff believes ample supplies of PRB coal were available for purchase during the period 1996 through 2005. Staff believes the annual spot prices in dollars per ton and cents per MMBtu, the prices in Column (1) of witness Heller's Exhibit 84. These prices, which did not include transportation costs, were uncontested in the hearing. Transportation costs must be added to the mine price to accurately reflect the delivered cost of coal to the utility.

Transportation Strategies

A. OPC Argument

OPC states that the argument offered by PEF for not burning PRB coal involves using the "waterborne proxy" to calculate PRB coal delivered prices. (OPC BR at 26) This transportation cost recovery method was never approved by the Commission for recovering PRB coal. (OPC BR at 27) OPC argues that PEF's evaluated analyses included a boiler performance penalty for PRB coal. (OPC BR at 26; TR 987) Further, according to OPC, PEF's evaluations of the cost of burning PRB coal were overstated by assuming that PEF would burn 100 percent PRB coal rather than a 50/50 blend of PRB coal and CAPP coal. (OPC BR at 27) Witness Sansom calculated what PEF's 1996-2005 delivered PRB coal prices would have been using TECO's delivered coal prices to Plant Gannon during 1996 to 2003, coal prices received by PEF in bids for 2004 and 2005, and estimated transportation costs for 2004 to 2005. He removed "boiler penalties" not presented by burning the 50/50 blend, and ultimately calculated 1996 to 2005 overcharge of $134.6 million. (OPC BR at 28) Witness Sansom originally included a blending charge and omitted a transloading fee for coal moving through New Orleans from his overcharge calculation. Through the testimony of witness Barsin, witness Sansom learned that he had included some unnecessary charges for blending PRB coal and CAPP coal. Witness Sansom left his overcharge calculation unrevised, allowing the transloading charges and the blending charges to offset each other. (OPC BR at 28; TR 138-139)

Witness Sansom testified that PRB coal could have been moved via three possible options: an all-rail route from the Powder River Basin to Crystal River, an all-barge river/Gulf

route, or a mixed route of rail to Mobile and Gulf barge to Crystal River. Witness Sansom stated, however, that such shipments of PRB coal would have reduced the affiliates' barge and dock revenues. (TR 76-77) Sansom stated that the most economical route would be via McDuffie terminal in Mobile and that this fact was confirmed by the bids for all rail coal transported to McDuffie received in PEF's August 2002 and May 2003 RFP's. (TR 77) Witness Sansom reasoned that PRB coal would have been less expensive than bituminous coal barged to IMT in New Orleans and transloaded to barge for delivery to Crystal River. He stated that the least expensive route to move PRB coal to Crystal River would be by rail to the Alabama state docks at McDuffie. Witness Sansom stated that the McDuffie terminal had capacity, could blend coal if necessary, and would have been a less expensive barge haul than from the IMT in New Orleans. Therefore, in his opinion, it was the most efficient route for PRB coal to CR4 and CR5.

Witness Sansom also presented weekly average FOB Mine prices for 8,800 Btu./Lb. PRB Coal for January 1996 to late 2006. (EXH 9) In his Fuel Damages Summary in Exhibit 29, witness Sansom presented the $/MmBtu delivered prices of TECO's PRB purchases at its New Orleans transfer facility for 1996 to 2002 (TR 90), an estimated price for 2003 (EXH 23) based on changes in PRB coal prices delivered to plants Miller and Scherer (TR 953), and bid prices received by PEF for 2004 and 2005. (TR 90, EXH 29)

Witness Sansom testified that Commission orders do not apply to transportation rates for PRB coal (TR 1195), and that the Commission never accepted witnesses Davis's and Heller's mileage prorate method of estimating barge rates. (TR 1195) Witness Sansom testified further that the waterborne proxy applies only to moves from upriver docks via river barges and imported coal. To calculate refunds for 1996 through 2002, Witness Sansom used TECO's delivered prices to its transfer facility as the delivered prices that PEF would have paid for PRB coal. (EXH 29) Witness Sansom notes, however, that had PEF actually made purchases of PRB coal, the rail-to-St. Louis route would not have been economical compared to the mine-to-Mobile, Alabama rail route. (TR 1192) Regarding the application of the waterborne proxy to PRB coal purchases in their bid analyses, Sansom testified that "they assumed in their bid analysis, that is the proxy, rather than relying on the market and, therefore, denied the ratepayers the benefit of market forces through the application of a methodology." (TR 1226)

B. PEF Argument

PEF witness Davis described PEF's coal transportation options to CR4 and CR5 as CSX rail and water barge, pointing out that the waterborne option provides an alternative in the event of a rail strike and other disruptions. The existence of two alternatives provides leverage in negotiating rates for both forms of transportation. Witness Davis stated that transportation was a significant portion of the delivered price of all coal purchases, and in the case of sub-bituminous coal, transportation costs surpass the commodity cost of the coal itself. (TR 270)

Davis stated that PFC's approach to coal transportation for CR4 and CR5 was to maximize the use of rail transport, as directed by the Commission. Of the two long-term contracts that ended in 2002, one called for rail delivery and one for barge delivery. This complied with the Commission's directive to maximize rail deliveries. Witness Davis said that because CR4 and CR5 burned compliance coal, PFC found it harder to obtain rail transport for compliance coal, so waterborne transport was emphasized for CR4 and CR5. Davis said that it

would be neither possible nor desirable to receive all coal shipments at CR4 and CR5 by rail. (TR 271)

Witness Davis pointed out that CSX railroad is the only railroad serving Florida and maintains a one-way only rail line between Dunnellon and Crystal River. This makes it impossible to run more than one train at a time to the Crystal River complex, which is served by a rail loop going to the plant and back out to the main line. Due to operational limitations of its facilities, it would not be possible for all of its coal to be received via rail, thus ruling out one option for PRB delivery suggested by OPC witness Sansom. (TR 271-272)

The waterborne proxy is a number of dollars per ton used by PEF to recover water transportation costs since 1992. (TR 273) PEF evaluated any potential PRB coal purchases using estimated rail rates to St. Louis (EXH 84) and a fraction (995/1564, based on mileages) of the Ceredo Dock to New Orleans proxy. (TR 275-276) The proxy charges appear by year in witness Heller's Exhibit 84, along with additional charges for rail-to-barge transloading (St. Louis) and blending (New Orleans). (EXH 84)

For the waterborne transport of domestic coal, witness Davis said that until 2004 PEF used a waterborne proxy rate established by the Commission to compute transportation costs for coal delivered by water to CR4 and CR5. The waterborne proxy rate included truck transfer from the mine to the river dock, transloading to the river barges, transport costs down river on the Ohio and Mississippi rivers, transfer to coal storage or to transload from a river barge to an ocean barge at IMT in New Orleans, and cross Gulf barge rates for delivery to CR4 and CR5. The waterborne proxy established in 1993 was based on 1992 actual costs and was thereafter annually escalated upward or downward as waterborne transport rates changed. The proxy was replaced in 2004 by a stipulated charge, to which OPC agreed, and again in 2005 to market-based rates, to the extent they existed. (TR 272-273) Witness Davis noted that in 2004, the FPSC approved a waterborne proxy for imported coal, FOB the barge, for transport activities associated with barging imported coal to Crystal River during 2001-2003, less the transloading component incurred by the imported coal supplier. (TR 274)

Witness Davis testified that proxy transportation rates were established by the Commission to replace cost-plus pricing, which had led to lingering suspicions that it resulted in higher costs due to affiliate transactions (TR 273), and that PEF could have lost money under the proxy arrangement. (TR 273, 352) Witness Davis further testified that when PEF purchased foreign coal at IMT, in the second year of proxy cost recovery, the Commission agreed to allow PEF to apply 50.2 percent of the "full proxy" to those tons, to recover transloading and cross-Gulf transportation costs. (TR 274)

Witness Davis states that in evaluating the delivered cost of coal to CR4 and CR5, PFC employed the applicable waterborne proxy rates established by the Commission in 1993 to each transport stage as necessary. (TR 274) Though OPC disagrees, PEF contends that this proxy is applicable to any domestic coal, and therefore that its use in evaluating the delivered cost of PRB coal is appropriate.

PEF notes that it received PRB bids in response to its RFPs and it evaluated PRB bids using the waterborne market proxy rates. (Davis TR 273-276; Order No. PSC-93-1331-FOF-EI,

issued September 13, 1993) PEF incurred some risk with the waterborne market proxy rates in that actual costs could rise above the proxy rates. In addition, the proxy rates clearly applied to domestic coal. (Davis TR 273-274; Order No. PSC-94-0390-FOF-EI, issued April 4, 1994)

PEF witness Heller states that OPC witness Sansom's analysis does not include the waterborne proxy costs allowed for import coal, and deviates from the reality of costs PEF would have encountered with imported coal deliveries, understating the delivered costs of PRB in witness Sansom's analysis. Witness Heller also questioned witness Sansom's use of the changes in delivered price of PRB to Southern Company's plants Scherer and Miller and does not agree that their costs are analogous to CR4 and CR5. (TR 952)

C. Staff Analysis

Central to the topic of transportation strategy is the question of whether, in its evaluation of PRB coal costs, PEF should have used the waterborne market proxy coal transportation rates established for PEF by the Commission.

Order No. PSC-93-1331-FOF-EI[13] describes the components that are included in the transportation market price proxy:

> The market price for EFC's water-borne deliveries would cover the transportation components to the Crystal River plant site. This would include short-haul rail/truck transportation to the up-river dock, up-river barge transloading, river barge transportation, Gulf barge transloading (IMT), Gulf barge transportation (Dixie Fuels), as well as port fees and assist tug. The market price would also cover, i.e., replace, the return on EFC's equity investment in IMT and Dixie Fuels currently provided under cost-plus pricing for water transportation.

Order No. PSC-94-0390-FOF-EI, p.4

By Order No. PSC-94-0390-FOF-EI,[14] the market price proxy for PEF was clarified:

> The parties agreed that the existing market pricing mechanism for the transportation of domestic coal should be modified to exclude cost components (e.g., river barging costs) not involved in the transportation of foreign coal.

Order No. PSC_94-0390-FOF-EI, p.5 Staff believes that PEF's use of the waterborne market proxy rates for evaluating PRB coal is appropriate. The order does not limit its application and in fact the clarifying order explains that the pricing mechanism is for transportation of domestic coal. PEF testified that it followed the Commission's orders in calculating transportation costs. Inclusion of the proxy in the purchase price affects PEF's evaluated price for burning PRB coal. Staff also believes that the busbar analysis was appropriate and did not penalize PRB coal.

[13] Order No. PSC-94-0390-FOF-EI, issued April 4, 1994, in Docket No. 040001-EI, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor.
[14] Order No. PSC-93-1331-FOF-EI, issued September 13, 1993, in Docket No. 930001, In re: Fuel and Purchased Power Cost Recovery Clause and Generating Performance Incentive Factor.

Therefore, PEF's evaluations of potential PRB purchases are the proper prices for PRB coal-purchase evaluations.

Foreign Coal

A. Staff Testimony

Witness Windham testifies that PEF also could have purchased South American coal less expensively than CAPP coal from 1996 through 2005. Witness Windham presents testimony that includes FERC 423 coal-purchase information for several Gulf Coast and Atlantic Coast utilities that purchased foreign coal, including coal purchased from Colombia and Venezuela, between 1994 and 2005. (EXH 163) Witness Windham calculates the average coal price in c/MmBtu by utility and by year, and he determined the median foreign coal price over all of the selected utilities. (EXH 156) Witness Windham also presents the number of contract tons, the number of spot tons, the average contract price, the average spot price for PEF's purchases, for delivery to IMT, by year, from 1994 through 2004. (EXH 157) Witness Samson agrees that, as evaluated by PEF in 2003, South American bituminous coal was less expensive that Central Appalachian bituminous coal (TR 1207), but notes that PRB coal would have been even 11 cents per MmBtu less expensive. (TR 61)

Witness Windham testifies that in all years, PEF could have replaced at least 500,000 tons of Region 8 coal and synfuel purchases with purchases of lower priced Colombian and Venezuelan coal, without finding itself unable to fulfill transportation contract minimum tonnages. (TR 1040)

Regarding his testimony's lack of a conclusion as to whether PEF had made its coal purchases prudently, witness Windham states that the observations his testimony presents are offered for informational purposes and that others may use his observations to make a final recommendation. (TR 1070, 1074, 1079, 1080) Witness Windham did summarize his testimony by saying that his Exhibit 157 " . . . appears to show that during the time period of 1996-to-2006, Progress Fuels Corporation (PFC), on behalf of PEF, often did not purchase the lowest price coal that met PEF's coal specifications for Crystal River Unit 4 (CR4) and Crystal River Unit 5 (CR5)." (TR 1032) Regarding whether PEF can burn only compliance coal, witness Windham states that " . . . you can in fact, blend coal, and that as long as the blend meets ... the compliance level, it's okay." This statement is borne out in Exhibit 52 which shows PEF's 1996-2005 coal purchases at IMT for use at CR4 and CR5. In 2005, PEF purchased at IMT 50,100 tons of coal with Lbs Sulfur per MmBtu exceeding 1.2 Lbs. (EXH 52, Page 10)

B. PEF Argument

PEF responds that witness Windham's testimony was flawed because (1) it contained no calculation of how much PEF had overpaid by not purchasing more South American coal, (2) not all of witness Windham's comparative FERC 423 purchases were made by utilities located in the Southeastern United States, (3) it did not include separate transportation costs for the comparative purchases, (4) some of the coals purchased by the comparative utilities were not compliance coals, and (5) it did not consider the conditions under which PEF had issued RFP's and received responses or reacted to spot offers. (PEF BR at 23) PEF included foreign suppliers

in its 1996-to-2005 coal procurement efforts and has in fact purchased considerable numbers of foreign coal tons since 2001. Witness Heller points out that witness Windham's observations do not address PEF's coal procurement policies (TR 960, 965), that the FERC 423 information does not include information about conditions at the times purchase decisions were made (TR 962, 963), and that witness Windham provides no opinion regarding whether or not PEF's coal purchases for the period 1996 to 2005 were made prudently.

Witness Heller presents a data set similar to witness Windham's Exhibit 163, in his own Exhibit 87, that presents foreign coal purchase information for the years 1996 – 2005 for fewer Southeastern utilities. (TR 970, EXH 87) Witness Heller pointed out that the basic coal-purchase data on which witness Windham based his observations contained coals that had originated in Australia and Russia, which may not have been offered to PEF as part of its bid solicitations and which may not have been test burned, and that some of the coals are not compliance coals, or that the numbers of pounds of sulfur per MmBtu's were greater than 1.2 pounds. (TR 971)

As with PRB coal, witness Davis testifies that PEF evaluated coals offered in responses to the 1996, 1998, and 2001 RFPs, based on a delivered cost basis and an evaluated busbar cost basis, (TR 300-301), and that PEF's bidder list contained over 100 bidders and always included coal suppliers and brokers with domestic, foreign, and PRB sub-bituminous coal. (TR 300)

Witness Windham's aggregate calculations do not include numbers of Btu's per pound. Witness Weintraub testified that burning 11,700 Btu's per pound Columbian coal, the CR4 and CR5 units can operate at full load. (TR 551)

C. Staff Analysis

In the period when replacing domestic purchases with foreign purchases would have generated positive savings, 2001-2005, PEF did in fact purchase large quantities of foreign coal. The quantities purchased were, by year:

Year	Thousands of Foreign Coal Tons Purchased c/MmBtu
2001	497.99
2002	279.79
2003	529.52
2004	965.47
2005	819.97

These increased numbers of tons were significantly greater than the 179.11 thousand tons of foreign coal purchased by PEF in the preceding five years.

Because of PEF's claim that its procurement practices for evaluating foreign coal purchases were prudently carried out, and because PEF purchased the increased numbers in the period when potential savings were the greatest, staff believes that PEF acted appropriately in purchasing the tons of foreign coal it did over the 1996-2005 period. Although alternative delivered prices to IMT or McDuffy may be calculated now, based on the evidence in the record of this case, staff cannot determine that PEF was imprudent with respect to purchasing foreign coal.

1.7 Affiliates

1.7.1 Parties Position Statements on Affiliates

OPC: PEF failed to identify subbituminous coal as a fuel for CR4-5 in its Title V application, but later amended that application to seek authority to burn "synfuel" purchased from affiliates. The "synfuel" purchases, which as with bituminous coal were more expensive than PRB during 1996-2005, helped enable parent Progress Energy to realize tax credits and synfuel-related revenues valuable to the corporation but not its customers, who forewent the opportunity afforded by PRB to lower fuel costs. In these and other particulars, PEF subordinated customers' interests to affiliates' profits.

PEF: PEF did not favor affiliates, but treated them equally with other potential coal suppliers, as demonstrated by PEF's purchases of coals from non-affiliates and foreign suppliers when cost effective to do so. PEF also evaluated synfuel on the same basis, choosing synfuel when it was the lowest total cost coal offered, rather than to benefit any affiliate. Indeed, PEF purchased synfuel from suppliers other than its affiliates.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: The affiliate relationship is the centerpiece of the consumers claim. PEF's fuel affiliate, PFC, did not act as broker for PEF, it bought fuel from other affiliates and third parties and then resold it to PEF at a profit. Not only PFC, but each of the other affiliates profited from the transaction. Under this arrangement great care must be taken by regulators for consumer protection. The need for careful scrutiny is exacerbated because all of the affiliate transactions are trade secrets. Independent review of the competitive market transactions during the study period disclosed the magnitude of the overcharge customers encountered.

White Springs: White Springs adopts the position of OPC as its own.

1.7.2 Analysis of Parties Arguments on Affiliates

A. OPC Argument

OPC witness Sansom testifies that PEF bought synfuel for CR4 and CR5, including synfuel from PEF affiliates, when it had less expensive options such as PRB coal and imported coal.[15] (TR 41, 65-66, 70-71, 1218) The production of synfuel can generate tax credits for the producer, with the amount of the tax credits inversely related to the price of crude oil. (Sansom TR 41, 64; EXH 15, p. 1 of 8; Weintraub TR 549) Witness Sansom notes that PEF's parent company, Progress Energy, Inc. (PEI), has claimed $1.25 billion in synfuels tax credits to date.

[15] Synfuel is coal that has been chemically altered by the addition of reagents, such as Bunker C oil, i.e., heavy fuel oil. Coal and coal fines are the feedstock for synfuel and can be combined with fuel oil under heat and pressure to produce coal briquettes.

(TR 64) Witness Sansom also noted the tax benefit for synfuel was $27 per ton in 2003. (Sansom TR 68) The tax credits for synfuel expire at the end of 2007. (TR 69)

PEF obtained from DEP the necessary permit to burn synfuels at CR4 and CR5 in early 2000. (Sansom TR 64) Witness Sansom states that synfuel made by PEF affiliates added sulfur and had to be blended with coal that had a lower sulfur content than previously specified for CR4 and CR5. (TR 65) According to witness Sansom, PEF moved quickly to obtain a permit to burn synfuel but otherwise omitted seeking an air permit for PRB coal. (TR 65-66)

Witness Sansom states that PEI owned synfuel producing companies and synfuel marketing companies. PEF affiliates supplied large amounts of synfuel to PEF for CR4 and CR5 between 2001 and 2005. (TR 68) Witness Sansom alleges that PEF favored its affiliates' docks, barges, and terminal in the bid process by carving out the water transportation routes for affiliates. (TR 68) Though PFC sold its share in barge and terminal affiliates in 2001, PFC had long-term contracts with the affiliates (or former affiliates) through 2004. (TR 69)

Witness Sansom further questions whether PEF's bid process for coal supply was fair. Witness Sansom argues:

> First, it is statistically impossible in a market as large as Central Appalachian bituminous coals for a supplier to garner in an open sealed bid market the proportions, which were achieved by PEF affiliates, of the CAPP/synfuels tons to IMT for Crystal River Units 4 and 5. (TR 69)

Witness Sansom states that PFC had a conflict of interest because PFC bought coal for PEF but PFC also had interests in synfuel plants that needed to buy coal in the same market. (TR 70) Witness Sansom further notes that a PEF affiliate, Black Hawk Synfuel, bid to provide coal when it did not have a firm supply. (TR 70) Witness Sansom states that, after January 1, 2000, PFC affiliate synfuels became the dominant source of supply for CR4 and CR5. (TR 71-72; EXH 17)

In rebuttal, OPC witness Sansom asserts that PEF concentrated on synfuels instead of cheaper PRB coal. According to witness Sansom, imported coal and PRB coal was cheaper than synfuel so the synfuel discount did not exist. Synfuel had high transportation costs and undisclosed blending and operational costs. (TR 1218-1219)

Witness Sansom reiterates his charge that PFC had a conflict of interest. He asserts the conflict of interest is that PFC bought coal for PEF and it bought coal for affiliated synfuel plants. (TR 1219) PEF witnesses Davis and Weintraub represented Black Hawk synfuel, the PFC affiliate, at a March 14, 2005 synfuel meeting. Later in 2005, witness Weintraub became PEF's Coal Procurement Director. (TR 1220, 485, 516)

Witness Sansom notes that coal had a spread above synfuel prices which encouraged suppliers to sell coal to synfuel producers rather than to PFC for PEF. He testifies that PEF favored the affiliated Black Hawk synfuel in its July 2003 solicitation over an unaffiliated low bidder. (TR 1221) Witness Sansom notes that PEI owned 100 percent of Black Hawk Synfuel, 10 percent of New River Synfuel, and 100 percent of Kanawha River terminals. These entities

were in the supply chain to provide bituminous coal to synfuel plants and ultimately to PEF. (TR 1222) According to witness Sansom, these arrangements allow PEI to generate significant tax credits. (TR 1222)

Regarding the decline in synfuel use at CR4 and CR5 during 2003 to 2005, witness Sansom notes that a water transportation settlement in April 2004 removed a profit incentive for PFC. He also notes that economic access improved for Kanawha River area synfuel markets. (TR 1223)

B. PEF Argument

PEF witness Donna Davis acknowledges that PFC bought synfuel for CR4 and CR5 during her tenure at PFC. Witness Davis states that PFC evaluated synfuel on the same basis as other coal offers. (TR 289) Witness Davis further states that PFC bought coal meeting utility specifications that had the lowest delivered cost and lowest evaluated cost. (TR 289-290, 292) Witness Davis testifies that PFC did not give preferential treatment to companies that produced or marketed synfuel in which PFC had an equity interest. (TR 291) She went on to note that the companies in which PFC had equity interests were by far the largest producers of synfuel in the country. On a number of occasions, PFC affiliates were the only companies offering synfuel on a spot basis. (TR 291) PFC also bought synfuel from suppliers having no direct or indirect connection to PFC. (TR 292) Synfuel generally was priced at a discount to bituminous CAPP coal but had an equivalent heat content, thus providing a benefit to ratepayers. (TR 291)

Regarding tax credits, witness Davis states the following:

> The tax credits from synfuel sales to PFC for Crystal River were minimal compared to the tax credits generated from sales of synfuel to other utilities and industrial customers. This is because tax credits were not available on sales from a company with a majority equity position in a synfuel producer to an affiliated company. The synfuel producers in which PFC held a majority equity position sold their synfuel coal product to utilities other than PEF and industrial customers. (TR 292)

As stated by witness Davis, New River Synfuel (New River) sold 80 percent of the synfuel purchased for CR4 and CR 5 between 2000 and 2005. PFC held a 10 percent equity interest in New River. New River sold more synfuel to other utilities than it did to CR 4 and CR 5. (TR 292) The tax credits that PFC claimed on New River synfuel sales to Crystal River coal units from 2000 to 2005 were an insignificant percentage of the total tax credits claimed by PEI over the same period. Witness Davis notes that "there is no basis in fact for anyone to suggest that synfuel tax credits influenced in any way the purchasing decisions for CR4 and CR5." (TR 302, 293)

Moreover, PEF witness Pitcher notes there was no preferential treatment in PEF's coal procurement process. Witness Pitcher sold coal and synfuel for PFC from 1984 to 2002, and from 2002 to 2005 was in charge of coal procurement for PFC, including buying coal for CR4 and CR5. (TR 363, 403-404) Witness Pitcher states:

> In each case in which I participated in an RFP on behalf of PFC/M&T, I was always treated just like any other bidder. I also participated in the spot market with PEF by providing PFC on PEF's behalf offers for spot purchases. Similarly, when I assumed the position of making coal procurement decisions for PFC on PEF's behalf I treated PFC/M&T, when they participated in the RFPs or spot market, just like any other bidder. (TR 404)

According to witness Pitcher, PFC was one of the first entities in the nation to develop a successful synfuel production process. Like PEF witness Davis, witness Pitcher notes that synfuel sold at a discount to bituminous compliance coal, which benefited ratepayers. The discount was made possible by the tax credits. (TR 405) Agreeing with witness Davis, he testifies that PEF was one of PFC/M&T's smallest customers, and therefore, generated only a small amount of tax credits for PEI, PEF's parent company. (TR 405-406)

PEF witness Weintraub also disagrees with witness Sansom's assertions. Witness Weintraub, like PEF witnesses Davis and Pitcher, notes that synfuel sold at a discount to bituminous compliance coal, and that the tax credits generated from the sales of synfuel to CR4 and CR5 were a miniscule amount of the total synfuel tax credits claimed by PEI. (TR 511) Also, witness Weintraub notes that affiliates that have a majority ownership interest cannot sell synfuel to each other and generate tax credits. According to witness Weintraub, all synfuel sales to CR4 and CR5 came from unaffiliated synfuel producers or producers in which PFC held a minority (10 percent) interest. (TR 511-512)

Witness Weintraub asserts that tax credits on synfuel sales did not influence coal procurement decisions for CR4 and CR5. From 2003 to 2005, synfuel sales to CR4 and CR5 decreased significantly as synfuel was displaced by cheaper imported compliance coal. During the same period, synfuel producers affiliated with PFC maintained relatively constant production. (TR 512-513)

C. Staff Analysis

The evidence shows that PEI owns 100 percent of PEF (formerly Florida Power Corporation), PFC, Black Hawk Synfuel, KRT Holdings and Kanawha River Terminals. PEI also owns 10 percent of New River Synfuel. (EXH 213; EXH 214, p. 4; TR 527, 543) Black Hawk supplies coal to New River as a feedstock for synfuel. New River sells the synfuel to utilities and industrial customers, including PEF. (TR 308, 292) Witnesses Davis, Pitcher, and Weintraub have worked for Black Hawk Synfuel. (EXH 215, p. 2; EXH 217; TR 411, 439) Affiliate relationships definitely existed for PEF coal procurement during 1996 through 2005.

New River pays Black Hawk fees for marketing synfuel, acquiring feedstock, and operating and maintaining the synfuel plant. (Weintraub TR 532-533, 544) Also, at times, PFC, on behalf of PEF, and Black Hawk are competing in the same coal markets. (Weintraub TR 534-535) New River, which apparently is 90 percent owned by GE Capital, owns the plant and land but Black Hawk manages the business. (Weintraub TR 543-544, 548)

PEF witnesses Davis and Pitcher note that PEF's affiliate relationships have been disclosed to the Commission and have been the subject of a number of Commission proceedings.

(TR 307, 308, 339, 341, 348, 476) Witness Pitcher testifies there was no favoritism toward PEF affiliates. He states that when he was on the sales side of PFC, he was treated like any other bidder. When he was on the procurement side, he treated affiliates like any other bidder. (TR 404, 410-411, 450-451) A firewall prevents bidders, PEF affiliates or otherwise, from gaining an unfair advantage in the RFP process. (TR 341-342, 451)

PEF witnesses Davis, Pitcher, and Weintraub all state that they bought coal for PEF on the basis of lowest delivered cost consistent with coal quality specifications. Coal bids were evaluated for cost and performance with a CQIM model, which is a "paper test burn." Synfuel and coal were evaluated in the same manner. PFC on behalf of PEF also looked at coal quality and the reliability of the supplier. (TR 290, 292, 301, 366, 409-410, 445-446, 447-448, 493-495) PFC sold coal to PEF at cost. (TR 340-341) Staff agrees with PEF that these procurement practices would have eliminated favoritism toward a particular supplier.

According to witnesses Davis, Pitcher, and Weintraub, synfuel was sold at a discount to bituminous compliance coal. The discount is about one to two dollars per ton with similar heat content. (TR 291, 405, 512) The coal feedstock for synfuel was priced higher than synfuel, with the spread being about four dollars per ton. This business model worked because the synfuel could generate tax credits. (TR 316-317, 414, 546) On this point, PEF witness Heller states "the discount for synfuels reflects a sharing of the producers tax savings with the customer as an inducement to the customer to purchase synfuels rather than coal." (TR 973)

Staff notes the spread could have provided suppliers incentive to sell coal to synfuel producers rather than utilities. However, PEF states it evaluated and bought coal and synfuel on the lowest delivered cost basis consistent with coal specifications. (TR 290, 410-411, 493-495) Also, as noted, synfuel sold at a discount to coal. (TR 291, 405, 512) Staff believes that such a possible incentive is not tantamount to PEF being biased in its procurement practices.

If a company had a majority equity interest in a synfuel producer, sales from that producer to affiliates would not create tax credits. (Davis TR 292, 314; Weintraub 511-512) The parent company of PEF did receive tax credits for affiliate sales of synfuel to CR4 and CR5 based primarily on its 10 percent equity interest in New River. However, the tax credits generated by affiliate synfuel sales to CR4 and CR5 were a very small percentage of the overall synfuel-related tax credits that PEI claimed for the period 2000 through 2005. (Davis TR 292-293, 343; Weintraub TR 511-512, 547) From 2003 to 2005, synfuel sales to CR4 and CR5 decreased significantly because import coals became less expensive.[16] PFC affiliated synfuel production remained relatively constant.[17] Given PEF's change to import coal from synfuel four

[16] "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." (Weintraub TR 513)

[17] "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 about two-thirds in 2003, to a little over 100,000 tons in 2004, and only 12,481 tons in 2005 (as a carryover from the prior year). During the same 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." (Weintraub TR 511-512)

years before the expiration of the synfuel tax credit, staff believes OPC's argument that affiliated transactions influenced PEF's coal procurement decisions fails.

As stated, Black Hawk Synfuel LLC is wholly-owned by PFC and ultimately by PEI. (EXH 213, 214) Black Hawk operated the New River synfuel plant and handled New River's purchasing and marketing. (Weintraub TR 532-535, 543-545, 548) This arrangement could provide PEF with some incentive to favor New River synfuel. However, PFC purchased coal and synfuel for PEF on the basis of lowest delivered costs consistent with coal quality specifications. (Davis TR 290, 292; Pitcher 366) Staff believes that PEF's coal procurement practices, as carried out by PFC, would have eliminated this possible incentive. (see Topic 1.2 above).

Elaborating on the charge of favoritism, witness Sansom recounts a July 2003 bid analysis in which a non-affiliate offer, initially determined to be the low bidder, was later turned down after PFC negotiated with its affiliate, Black Hawk Fuels. Witness Sansom points out that Black Hawk had no firm supply of coal to back its offer, though a supply was located during the negotiations. Ultimately no purchase was made by PFC from either supplier but witness Sansom states that ratepayers were harmed since the coal needed was obtained in 2004 at higher prices. (TR 70-71) Staff disagrees with the favoritism charge and notes that Black Hawk was a broker and, as such, would not own or control coal that it bids. PEF bought coal on the basis of lowest delivered and evaluated cost. (Pitcher TR 416; Davis 290, 292) Moreover, staff believes these kinds of transactions are common when dealing with coal brokers. Generally a coal broker who does not own or control coal can respond to an RFP without having a firm supply.

PEF bought and transported coal using affiliate companies during the period. As more specifically discussed in Topic 1.2 above, staff believes PEF's activities with affiliates met Commission guidelines and did not result in higher coal prices.

In staff's opinion, the record does not support the that PFC purchases from affiliates resulted from preferential treatment of affiliate companies. Though PFC bought a large amount of synfuel from affiliates in the early part of this decade, staff believes this is reasonable because these affiliates were among the nation's largest producers of synfuel. Staff notes also that PFC purchased synfuel from non-affiliates, as well.

Other utilities purchased the majority of the synfuel sold by PEI affiliates during these years, with the PEF purchases representing a miniscule percentage of both total sales. The unusual opportunity for utilities to take advantage of the tax credits while simultaneously paying a lower price for synfuel products than for bituminous coal created an industry phenomenon for a period of time. Finally, the relatively small percentage of PEI's total synfuel credits represented by PEF's synfuel purchases argues against OPC's contention that the synfuel use was an effort to pad the profitability of its parent company.

1.8 Other Factors

1.8.1 Parties Position Statements on Other Factors

OPC: Barge Rates – PEF witnesses wrongly employ a "waterborne proxy" barge rate when arriving at the delivered cost of PRB coal for purposes of comparisons. The "Waterborne proxy" approved by the Commission was by its terms applicable only to specific river routes. It was inapplicable to movements of western PRB coal, and PEF's assumed but unauthorized version is more expensive than market rates reflected in real transaction data. By using an unauthorized and inflated barge rate assumption rather than actual rates, PEF artificially increases the cost of the PRB alternative in its calculations.

PEF: With respect to the issues above and identified in the evidence in this case, as long as PEF acted *reasonably* in its fuel procurement decisions, it does not matter whether others would have acted differently. OPC's Petition requires the Commission to second-guess the Company and make management decisions that should be made by the Company. Given all the considerations involved with making fuel purchases, and considering what the Company knew at the time it was making its coal procurement decisions, the evidence shows that PEF acted prudently and reasonably in procuring coal for CR4 and CR5 from 1996 to 2005.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: Adopts the position of the Office of Public Counsel.

FIPUG: The potential for affiliate abuse led to the creation of market proxies for barge transportation, but this proxy fell far short of dealing with the tangled web of affiliated transactions. There is no proxy for purchases from affiliate company owned mines, unloading, mixing and processing services from the affiliate owned shipping terminal, or for western coal purchases that could be delivered by third party rail. When independent studies show prices charged by affiliated companies resulted in higher than competitive market prices for coal customers refunds are in order.

White Springs: White Springs adopts the position of OPC as its own.

1.8.2 Analysis of Parties Arguments on Other Factors

In their briefs, OPC and FIPUG raised barge transportation costs, i.e., the waterborne proxy rates, for this topic. Staff discussed barge rates under the Coal Cost and Availability topic.

In its brief, PEF asserts the standard of review of prudence. The appropriate standard of review for prudence is addressed in the case background.

PRIMARY STAFF CONCLUSION

Staff: McNulty, Vinson, Coston, Fisher

Primary staff believes PEF did not act prudently in purchasing coal for CR4 and CR5 during the period 2001 through 2005. Primary staff believes PEF paid excessive fuel costs from 2003 through 2005 due to PEF management's failure during 2001 and 2002 to seek revisions to its environmental permit, to conduct PRB coal test burns, to modify its plant to burn PRB coal on a long term basis, and to purchase PRB coal.[18] These management failures occurred despite the fact that PFC recognized in May 2001 that PRB was very competitive, on an evaluated basis, with the types of coal it had historically purchased (CAPP coal and foreign coal) on behalf of PEF. Primary staff believes PEF management's failures to act despite its affiliate managements' knowledge that PRB coal was a cost-effective alternative was imprudent. Primary staff believes PEF incurred excessive fuel costs amounting to $12,453,457 in 2003 through 2005 due to management imprudence, and primary staff believes such excess fuel costs should be refunded to ratepayers with interest (see Issue 4 regarding refund matters).

PFC's evaluation of the market response to the May 2001 RFP proved that PEF could no longer afford to be unprepared to purchase PRB coal on either a spot or contract basis. With the May 2001 bid responses, PEF's management had received incontrovertible evidence, even assuming PEF waterborne proxy transportation rates, that PRB represented a very competitive coal purchase option for PEF's CR4 and CR5 generating units for both current and future coal purchases. The only way to prepare for such purchases would have been to immediately seek a permit revision and conduct test-burns of PRB coal at CR4 and CR5. If PEF management had pursued PRB coal aggressively beginning in May 2001, PEF would have positioned itself to be permitted and ready to burn PRB coal by no later than January 2003. However, as PEF's testimony reveals, PEF did not know that it was not allowed to burn PRB coal per its Title V permit at the time of its April 2004 test burn. (TR 395) The period of May 2001 through April 2004 represents a three-year period during which PEF's lack of awareness of the permit status of its own power plants cannot be viewed as a simple managerial oversight.

Commission Order No. 12645 includes a recovery criterion that all expenses associated with fuel procurement be reasonably competitive in cost or value relative to what other buyers are paying under similar terms and conditions. CR4 and CR5 were designed to burn PRB coal, PRB coal was evaluated by PEF as a competitive alternative in May 2001, coal transport options were available to PEF for PRB coal deliveries, and many other Southeastern utilities were purchasing PRB coal for their power plants. (EXH 2, p. 3; TR 927-928; EXH 11) Given these circumstances, primary staff believes PEF was imprudent to not immediately seek permit modification to allow PRB to be burned at CR4 and CR5 after its May 2001 bid evaluation.

[18] While PFC purchases coal on behalf of PEF, PEF management are fully responsible for the purchase decisions of PFC management. Page 4 of Order No. 21847, issued September 7, 1989, states that the Commission will review and subject the activities of EFC (Electric Fuels Corporation, the predecessor to PFC) to the same scrutiny and standards that we would apply to FPC (Florida Power Corporation, the predecessor of PEF) if they had procured their own fuel.

On the matter of coal procurement practices, primary staff believes that if PEF had taken the prudent step of obtaining a revision to its Title V permit in mid-2001, it would have been in the position to seize upon market opportunities for PRB coal by January 2003. Two high-volume long term coal contracts for CR4 and CR5 expired in 2002, and one of those expiring contracts was the Massey contract, constituting a purchase of over one million waterborne tons per year. (TR 263, 270) PEF would have been in the position to augment its supply of coal for CR4 and CR5 with either a long term PRB coal contract to replace expiring contracts, or spot purchases in those instances when PRB coal was the most cost-effective alternative. Primary staff believes it was imprudent for PEF to not purchase PRB coal when it was cost-effective to do so in 2003-2005.

Regarding CR4 and CR5 operational matters related to burning PRB coal, the capital and operational cost impacts of burning PRB coal at these units would be quite limited if the quantities were restricted to blends less than 30 percent PRB coal blended off-site. Thus, primary staff believes the evidence in the record indicates that PRB coal blends less than 30 percent for CR4 and CR5 could have been purchased for the January 2003 through December 2005 period without incurring large incremental capital or operating costs. Primary staff believes that PEF was imprudent to not incur the minimal operational and capital costs to be able to safely burn a twenty percent blend of PRB coal beginning in 2003.

Both primary and alternative staff agree that the 50/50 blend could cause a derate of the MW capacity at CR4 and CR5. However, primary staff believes the evidence in the record supports a long term 80/20 blend of bituminous coal to PRB coal with no derate at CR4 and CR5.

PEF's imprudence in failing to seek modification of its Title V permit and to conduct test burns of PRB was not without consequence. PEF incurred excess costs by failing to purchase PRB in 2003, 2004, and 2005. The calculation of excess costs is considered in Issue 4. PEF witness Heller concludes his prefiled direct testimony with the following statement: "In 2004-2005, it appears that the evaluated price of PRB to Crystal River would have been less than the delivered price of CAPP and imported coals." Primary staff agrees with witness Heller's assessment, but believes that the evaluated price of PRB coal for CR4 and CR5 in 2003 is less than CAPP and imported coals when PRB coal accounts for 25 percent or less of the blend, as discussed in Issue 4. Thus, primary staff believes PEF's imprudence has been verified by the market evaluation for all three of the years in question.

In 2003-2005, PEF paid excessive fuel costs due to its failure to earnestly pursue the ability to burn PRB coal at CR4 and CR5 beginning in May 2001. These excessive fuel costs were passed on to PEF's ratepayers via PEF's fuel cost recovery factors. In primary staff's analysis in Issue 4, primary staff calculates the recommended refund amount, based on the differential between PEF's actual costs of bituminous coal and primary staff's estimated costs of PRB on an evaluated basis, plus excess SO2 costs and interest.

The prudence of PEF's coal purchases of 2006 and 2007 is not a matter to be considered in this proceeding. However, if the Commission approves primary staff's recommendation on this issue, primary staff believes the Commission should direct PEF to supplement its 2006 Final

True-Up Testimony in Docket No. 070001-EI to address whether the Company was prudent in its 2006 and 2007 coal purchases for CR4 and CR5.

ALTERNATIVE STAFF CONCLUSION

Staff: Lester, Sickel, Matlock

Alternative staff believes that PEF was prudent in procuring coal for CR4 and CR5 for the period 1996 through 2005. The determination of whether a utility's conduct is prudent is to ask what a reasonable utility manager would have done in light of the circumstances and facts known or knowable to him at the time. As testified to by PEF witness Fetter:

> [u]tility management decisions are not imprudent if they fall within a range of reasonable business judgment. It would be very rare for there to be a single right business judgment on an issue, especially when the issue is a complex one. Rather the norm would be that a range of decisions exists that an informed management could make and which would represent a reasonable and prudent decision (TR 188)

Alternative staff believes that PEF moved cautiously in making any changes to the types of coal selected. Its decision were based not only on actual costs, but also on transportation issues, volatility issues, the potential for a derate using lower Btu coal, and the additional costs PEF might incur.

In evaluating PEF's decisions it is helpful to break the prudent cost decision into three questions: (1) For the period 1996 through 2005, was PEF prudent in its coal procurement practices for CR4 and CR5?, (2) What would have happened if, during the same period, PEF had burned a blend containing 50 percent PRB coal at CR4 and CR5?, and (3) What should a utility consider before switching types of coal?

Prudence of PEF's Coal Procurement Practices

Alternative staff believes the Company's coal procurement practices were prudent from 1996 to 2005. When buying coal for CR4 and CR5, PEF sent out RFPs to a large number of coal suppliers and, using an industry standard model, it evaluated the bids based on the lowest total delivered cost consistent with reliability and coal quality specifications. For most of the period in question, PEF used the Commission-approved waterborne market proxy rates to evaluate bids for coal delivered by water, which alternative staff believes was appropriate.

PEF certainly had transactions with affiliated companies for coal supply and transportation during the period. However, the record reflects that PEF disclosed these relationships, the affiliate relationships comply with Order No. 12645, and the Commission has reviewed PEF's affiliate relationships in various past proceedings. As noted, the parent company of PEF received a very small percentage of its total synfuel tax credits from affiliate sales to CR4 and CR5.

Through staff witness Bernard Windham, staff raised the question of whether PEF should have bought more foreign coal during the period. Staff notes the general sense of this testimony was to provide information that the Commission may want to use. However, upon review of the entire record for procurement practices, staff does not believe this testimony shows PEF's

procurement practices to be imprudent. FERC Form 423 data, as used by witness Windham, show delivered prices to various utilities. Significant portions of this data were based on long-term supply contracts and may not indicate concurrent market prices.

Finally regarding the question of prudent procurement practices, PEF could not burn sub-bituminous coal during 1996 through 2005 because it lacked the appropriate environmental permitting. PEF apparently only discovered this inability during the 2004 PRB coal blend test burn that was stopped midstream. Alternative staff believes PEF could have been more proactive in developing the flexibility to burn as many different types of solid fuel at CR4 and CR5 as could be practical.

However, in this particular instance, PEF's inability to burn sub-bituminous coal in 2004 did not result in it paying higher coal prices. PEF would have had to upgrade equipment to burn a 50/50 blend with PRB coal. The equipment upgrade would have taken longer than the time needed to obtain a Title V amendment. Considering all the above points, alternative staff believes PEF's procurement practices for CR4 and CR5 during the period were prudent.

Burning 50 percent PRB Coal Blend at CR4 and CR5

Regarding the second question, the Commission should give significant weight to the effect of burning PRB coal on the MW output rating for CR4 and CR5. Had PEF burned a blend with 50 percent PRB coal at CR4 and CR5 during the period, a sizable derating of the units would have occurred due to the properties of PRB coal. The make up power for these derates would have been costly. As base load units, CR4 and CR5 typically follow only the CR3 nuclear unit in the order of economic dispatch.

A lower percentage of PRB coal in the blend still would present the risk of a derate. For example, the test burn at CR5 with a 22 percent PRB coal blend experienced a loss of 30 MW.

Further, had PEF burned PRB coal at CR4 and CR5 during the period, it would have incurred some level of capital costs and increased O & M expenses. PRB coal is dusty, has a lower heat content, and has unique issues related to grinding, boiler performance, and maintenance. While PEF provided persuasive evidence that it would incur additional capital costs and O&M expenses if it burned PRB coal at CR4 and CR5, alternative staff does not necessarily agree with all the costs that PEF claims. Regarding PRB coal and CR3, alternative staff believes bringing PRB coal on-site at Crystal River on a long-term basis would have triggered an incremental risk evaluation per NRC rules.

Additional Considerations Necessary Prior to Switching Coal

CR4 and CR5 are base load units. PEF has been appropriately cautious in considering different types of coal for these important units. PEF has continued to explore using a blend of PRB coal but continues to burn only bituminous coal at CR4 and CR5. Transportation costs for PRB coal have increased significantly and other coals, including foreign coal, have proven more economical.

Careful consideration is necessary for switching to new coal types. Such a switch involves reviewing future coal costs, safety concerns, boiler performance, increased capital expenses to transport the coal and to bring the coal safely onto the site, and additional operation and maintenance expenses.

A significant portion of the testimony focused on the existence of a nuclear power plant at the same site where PRB coal might be stored and used. Compared to bituminous coal, PRB coal is dusty and more subject to spontaneous combustion. While a PRB coal blend might be safely used at CR4 and CR5, staff believes a thoughtful and deliberate approach to switching fuels is necessary and appropriate.

Conclusion

Therefore, alternative staff believes PEF made prudent coal purchasing decisions during the period. PEF provided persuasive evidence that, had it burned a PRB 50/50 blend at CR4 and CR5, it would have experienced significant derates and would have incurred additional capital costs and O&M expenses. Further, PEF has appropriately explored using a lower percentage PRB blend at CR4 and CR5 but has found other coals more economical. Given the issues of derates, increased capital and operating costs, and increasing transportation costs associated with PRB coal, staff believes PEF made prudent coal purchasing decisions during the period.

Issue 2: If the Commission determines that PEF acted imprudently in its coal purchases, should PEF be required to refund customers for coal purchased to run Crystal River Units 4 and 5 during the time period of 1996 - 2005?

Primary Recommendation: If the Commission approves primary staff's recommendation on Issue 1, the Commission should require PEF to refund customers $12,453,457, plus interest. In addition, the Commission should encourage the parties of Docket No. 070001-EI to address, in their projection testimony to be filed in September 2007, the issue of whether and how the Commission should conduct prudence reviews of fuel and purchased power costs approved for cost recovery in the fuel docket. (Maurey, Springer, McNulty)

Alternative Recommendation: If the Commission approves the alternative staff recommendation on Issue 1, then this issue is moot. The Commission may address the issue of policy raised by Issue 2. (Lester)

Position of the Parties

OPC: Yes. Under the current system, utilities may collect fuel costs as they are incurred and before providing information sufficient to establish the costs are prudent. The PSC must balance this benefit to utilities with measures adequate to protect customers' interests. Prudence review entails-not only amounts spent-but decisions made regarding alternatives. If a utility elects not to provide all relevant facts, placing time limits on parties' ability to obtain such information from utilities would send the message that a utility which submits comprehensive information is subject to prudence review, but one which holds back may avoid it.

PEF: No. Over the past decade, the Commission reviewed and approved for collection billions of dollars in fuel costs, including the costs of coal for CR4 and CR5, from PEF's customers. No one can reasonably suggest that there was no prudence determination before PEF was allowed to collect them from customers. Any decision by the Commission to re-visit its prior orders on the allegations in this proceeding will undermine regulatory certainty, and will unnecessarily bog down current and future fuel proceedings with more information as utilities speculate on what will be considered important to ensure that decisions are not later questioned.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: Yes. The Commission is the only forum in which customers can seek refunds. The Commission has the authority to grant refunds. When the alleged overcharges deal with trade secrets between affiliates a liberal review of lengthy time periods is in order.

White Springs: Yes. White Springs agrees with OPC and other Intervenor parties that findings of imprudent management of coal purchases require an order directing PEF to refund excessive charges to consumers.

Analysis of Parties Arguments on Commission Policy

Staff understands Issue 2 to be one of policy. Whereas Issue 3 addresses whether the Commission has the authority to order refunds, Issue 2 addresses whether the Commission should order a refund in this instance if PEF is found to have acted imprudently. OPC first presented its case to the Commission regarding the alleged imprudence of PEF's 1996-2005 coal procurement decisions in August 2005, for which 2004 was the final true-up period. However, PEF argues that it is not acceptable to reconsider cost recovery amounts prior to the final true-up year, or the years 1996 through 2003. This is counter to primary staff's recommended refunds for 2003 fuel revenue (Issue 4). Primary staff addresses in this issue whether it is appropriate to require refunds for periods prior to the final true-up period. This issue also addresses the alleged impacts to the financial markets and regulatory environment that could result from a Commission decision to grant the relief requested by OPC or recommended by primary staff.

As stated in Issue 3, staff believes the Commission may review the actions of PEF management to determine if PEF's decisions regarding fuel procurement were prudent under the conditions at the time the decisions were made. If the Commission determines in Issue 1 that the utility was imprudent, it is because those decisions were imprudent under the conditions that existed at the time they were made. Primary staff based its recommendation upon facts that PEF management knew or should have known in 2001.

Primary staff's recommendation in Issue 4 is for the Commission to require refunds for 2003, 2004, and 2005. Staff notes that, in the Maxine Mines case, the Commission ordered refunds for recovery periods two years prior to the matter being brought to the Commission's attention. In the instant case, primary staff is recommending the Commission order refunds for recovery periods two years prior to the matter being brought to the Commission's attention. While staff believes the Commission can order a refund for imprudent expenditures for any periods in which the Commission makes a determination of imprudence, primary staff recommends a refund for the two years preceding the motion which first brought this issue to the Commission.

Regarding the alleged impact upon the financial markets of requiring refunds for periods prior to the final true-up period, PEF contends the investment community would react negatively if the Commission were to find in OPC's favor in this proceeding. (PEF BR at 46; OPC BR at 32; TR 186) Three witnesses address this subject.

PEF witness Fetter testifies that if the Commission were to reconsider fuel costs that have previously been approved for cost recovery going back ten years, it would create a regulatory environment within which no issue is ever finally resolved. (TR 186) He states that the three major rating agencies would be "stunned" if the Commission were to validate OPC's theory of the case. (TR 186) He also testifies that he expects investors would react to such a development by requiring higher returns on equity and debt, not only for PEF but potentially for all of Florida's investor-owned utilities. (TR 187) Witness Fetter concludes that such a process would be unfair to both investors and ratepayers and, thus, would represent bad regulatory policy. (TR 191)

OPC witness Lawton testifies that OPC's prudence challenge regarding past PEF coal procurement is in line with the Commission's previous rulings on fuel cost reviews and is supported by the Supreme Court's Gulf decision. (TR 1137–1139) He also states that no utility, investor, or the investment community at large reasonably expects a regulatory commission to permit imprudent expenditures to be recovered from ratepayers. (TR 1138) Finally, witness Lawton concludes that credit market problems, if any, arising from a disallowance would be the result of management conduct and it would be the Commission's responsibility to shield ratepayers from any such higher capital costs in the same manner it would prevent any other unreasonable costs from being borne by ratepayers. (TR 1147 – 1148)

Witness Bohrmann, also testifying on behalf of OPC, refers to numerous Commission Orders to support OPC's contention that the Commission retains jurisdiction to consider and review the prudence of costs recovered through the fuel adjustment clause beyond the fuel adjustment proceedings. (TR 1501 – 1504) Witness Bohrmann also testifies that PEF witness Fetter "either misunderstands or ignores the structure and the purpose of the fuel cost recovery mechanism" as it has been consistently applied in Florida since the early 1980's. (TR 1501 – 1502) Witness Bohrmann concludes that, if the Commission finds that PEF was imprudent in its fuel procurement for CR4 and CR5, the Commission has the jurisdiction and supporting precedent to order a refund as proposed by OPC. (TR 1534)

The record contains competent and substantial evidence that the Commission has both the jurisdiction and the precedent to grant the relief sought by OPC if the factual circumstances warrant. (Fetter TR 228 – 231; Lawton TR 1136 – 1137) PEF acknowledges to investors in its Form 10–K filed with the Securities and Exchange Commission (SEC) that while state commissions allow fuel costs to be recovered through recovery clauses, there is a potential that a portion of these costs could be deemed imprudent by the respective commissions. (TR 1137) Based on the explicit language from numerous Commission Orders and the company's own statements in filings made with the SEC, all parties were on appropriate notice that past fuel costs were subject to prudence review in the event evidence came to light that identified imprudently incurred costs. (TR 1147)

The role of regulatory commissions in general, and the function of performing prudence reviews in particular, are generally recognized and understood by the investment community. (Fetter TR 237 – 240; Lawton TR 1146 – 1149) Witness Fetter acknowledges that the Commission has long been regarded by the investment community as being a regulatory body that fosters and maintains a fair and constructive regulatory climate. (TR 168 – 169) He also acknowledges that, based on his experience as a Public Service Commissioner in Michigan and his testimony as a consultant before the Arkansas Public Service Commission, it is appropriate for regulatory commissions to disallow recovery of imprudently incurred costs. (TR 237 – 241)

Given the Commission's reputation with the investment community and recognizing that the fuel costs in question represent less than 1.6 percent of PEF's total fuel costs over the period under review, staff believes PEF is overstating the reaction the investment community will have to the Commission carrying out its generally accepted statutory responsibility. (Bohrmann TR 1506; Fetter TR 186) For the reasons discussed above, staff recommends that if the Commission finds a disallowance of certain fuel costs is warranted based on the facts in this case, the

Commission should not be dissuaded from making the appropriate adjustment based on PEF's argument that the investment community would react unfavorably.

Although staff recommends that the market will not be negatively influenced by the Commission's decision, the Commission does have the discretion to clarify or change its previously established authority. Staff is of the opinion that Order No. 12645 and subsequent decisions support a Commission decision to review prior conduct, including conduct from 10 years past. PEF argues that the Commission's policy has been to consider the final true-up as the prudence review. The question of the timing of prudence reviews is an issue that affects all parties to the fuel docket. Since not all parties to the fuel docket participated in this docket, staff recommends the Commission should encourage the parties to Docket No. 070001-EI to address, in their projection testimony to be filed in September 2007, the issue of whether and how the Commission should conduct prudence reviews for fuel and purchased power costs approved for cost recovery in the fuel docket.

Issue 3: Under the circumstances of this case, does the Commission have the authority to grant the relief requested by OPC?

Recommendation: The Commission has the authority to grant the relief requested by OPC. (Bennett, Young, Holley)

Position of the Parties

OPC: Yes. Citizens do not ask the Commission to employ hindsight. In Order Nos. 12645, 13452, and PSC 97-0608-FOF-EI, the Commission recognized it was allowing utilities to collect fuel costs based on partial information, and rejected attempts to limit the time in which it could revisit past amounts upon receiving facts relevant to prudence. The Florida Supreme Court affirmed the ability of the Commission to make adjustments in the continuous fuel proceeding without engaging in "retroactive ratemaking." Citizens have presented facts relevant to prudence of PEF's fuel purchases for CR4-5 (see positions 1,4) that PEF never submitted to the Commission.

PEF: No. It is fundamentally unfair to the Company under principles of retroactive ratemaking, administrative finality, and due process to allow the Commission to re-visit its past orders absent some material concealment, which is not present here. Further, OPC's testimony is replete with examples of impermissible hindsight review. If a refund is required, as OPC alleges, it would place an impossible burden on PEF's management – the ability to foresee the future. The purpose of not allowing hindsight review is to relieve this burden. The Commission cannot second guess management decisions and that is what OPC asks this Commission to do.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: Yes. Order Nos. 12645, 13452, and PSC 97-0608-FOF-EI, affirm the refund authority plus an extended look-back period. When regulated utilities combine into a Public Utility Holding Company, such as, Progress Energy and deal with a plethora of unregulated affiliates in secret transactions they should understand that the transactions can and will be subject to review for extended periods.

White Springs: Yes. It is well settled that the Commission possesses the authority to conduct this prudence review and order the relief requested by OPC and AARP in this docket.

Analysis of Parties Arguments on Authority of the Commission

A. OPC's Argument

OPC explains that the proceedings for fuel cost recovery have been in place for decades. The recovery mechanism allows utilities to collect the costs of purchasing and transporting fuel through a cost recovery mechanism, separate from base rates. The cost recovery mechanism of the fuel clause is intended to enable utilities to adjust their rates without going through a revenue requirements determination each time volatile fuel costs change. This method of fuel clause recovery is a departure from traditional ratemaking. OPC asserts that fuel clause recovery favors utilities. Since the early 1980's the utilities have been allowed to recover volatile fuel costs on a current basis. The utilities may recover current costs from its customers by using projections of future costs, despite the fact that the utilities would not have proven the prudence of those costs at the initial projection approval. Nor is a utility required to prove prudence at the time of true-up when projections of costs are simply compared to actual expenditures. (OPC BR at 30)

According to OPC, the customers' interests are to be protected by requiring that the burden of proof of prudence remain with the utility requesting recovery through the fuel clause. OPC claims that the proof the Commission requires to show prudence is the same as required in base rate proceedings. A utility may either choose to present comprehensive proof of prudence or not. To the extent the utility does not present that proof, the Commission retains jurisdiction to consider it. (OPC BR at 31)

OPC states that the tenets of this system are set out in Order Nos. 12645, 13452 and PSC-97-0608-FOF-EI.[19] The Florida Supreme Court affirmed the Commission's continuing jurisdiction over the prudence of fuel costs in Gulf Power Company v. Florida Public Service Commission, 487 So.2d 1036 (Fla. 1986). OPC argues that if the Commission had not required the utility to maintain the burden of proof of prudence, then the Commission would have abdicated its responsibility to protect customers' interests. (OPC BR at 31) Since the Commission retains jurisdiction to disallow past overcharges when factors warrant, the only remaining question is whether OPC has brought relevant facts to the Commission's attention so that the Commission may protect customers from imprudent and unreasonable charges. (OPC BR at 31) OPC asserts that it has.

OPC argues that PEF's witness, Mr. Steven Fetter, mistakenly assumed that the Commission had made findings of prudence at the time it issued its true-up orders. OPC maintains that its witness Bohrmann effectively rebutted Mr. Fetter's assertion. (OPC BR at 32, Bohrmann TR 1501-1502) OPC also asserts that witness Fetter supports the Commission's ability to adjust collections and to disallow overcharges for a reasonable period of time (three years in Fetter's opinion, OPC BR at 33, TR 204)

According to OPC, Witness Fetter opined that the Commission should only reach farther than three years in the instance of a material concealment. (TR 204) OPC argues that the

[19] Order 97-0608-FOF-EI, issued May 28, 1998, in Docket No. 97-0001-EI, In re: fuel and purchased power cost recovery clause and generating incentive performance factor.

distinction between Mr. Fetter's position and OPC's position is one of semantics. There is no difference between a utility that elects not to present all facts bearing on prudence (including those that would show imprudence) and a utility that engages in a material concealment. OPC charges that the facts show PEF "deflected" criticism for not purchasing the cheapest fuel in a 2004 RFP by responding that its environmental permit did not authorize PEF to burn the coal. According to OPC, PEF purposely omitted any reference to PRB coal in its Title V application. PEF amended its application to include synfuel but did not add PRB. PEF's own procurement and plant personnel were not aware of the federal permit limitations when it attempted to conduct the coal burn. PEF failed to conduct a stack test, and when evaluating PRB coal, PEF clung to the position that it could use the waterborne proxy rate to apply to transportation of PRB coal. OPC argues that if PEF had let the Commission know these and other facts, the Commission would have been able to make a prudence determination much earlier. PEF was on notice that the Commission retained jurisdiction and, despite that notice, chose not to present relevant facts to the Commission on a timely basis. (OPC BR at 33-34)

OPC asserts that it is the duty of the Commission to protect ratepayers from the imprudence of utility management, and if the capital markets react negatively, it is utility management and not the customers that must bear the risk of that imprudence. If a refund is necessary to make ratepayers whole, the Commission has the ability to structure the timing of the refund so that PEF may continue to operate without failing financially. (OPC BR at 34-35)

B. FIPUG's Argument

FIPUG states that the Commission has clearly affirmed its authority to refund overpayments by prior Order Nos. 12645, 13452, and PSC-97-0608-FOF-EI. Further, by Order No. PSC-92-1048-FOF-EI[20] the Commission articulated its responsibility to establish just and reasonable rates, and to change rates when they are not just and reasonable. FIPUG cites to the Commission "Daisy Chain" order to support its position that the Commission has the responsibility to ensure that fuel adjustment charges are appropriate:

> Because of the relative importance and impact of fuel costs upon the ratepayers, it is incumbent that electric utilities exercise all reasonable means to purchase the lowest costing fuel possible. Any deviation from this policy results in excessive monthly fuel adjustment charges, the majority of which are passed on to the ratepayers through the application of the fuel cost recovery clause. Where excessive charges for fuel are paid by a utility, we *find it to be our responsibility to correct such overcharges and take whatever measures are necessary in order to rectify that situation.*[21]

(Emphasis by FIPUG). (FIPUG BR at 17-18)

[20] Order No. PSC-92-1048-FOF-EI, issued September 23, 1992, in Docket No. 920041-EI, In re: Petition for Clarification and Guidance on Appropriate Market Based Pricing Methodology for Coal Purchased from Gatliff Coal Company by Tampa Electric Company.

[21] Order No. 8205, issued March 1, 1978, in Docket No. 770671-CI, In re: General investigation and show cause order as to alleged overcharges paid by Florida Power Corporation for spot purchases of fuel oil, pages 1-2.

C. White Spring's Argument

According to White Springs, the Commission has the authority and the responsibility, to evaluate the prudence of PEF's coal procurement decision. (White Springs BR at 10)

White Springs contends that the testimony of PEF's witness Fetter is incorrect when he asserts that once fuel costs have been recovered through the fuel clause, the Commission should not evaluate the prudence of those costs unless there were allegations of material concealment on the part of the utility. The correct state of Florida law is that cost recovery is subject to subsequent prudence reviews. This is essential to the Florida process since the current process involves all regulated utilities in a single docket. That docket accounts for the majority of costs actually charged consumers. The current process is streamlined so that utilities may recover fuel related costs expeditiously with a later prudence review of specific matters if circumstances warrant, as they do here. (White Springs BR at 10-11)

White Springs argues that adopting Witness Fetter's position would require the fuel proceeding to become more complex and impractical as the Commission would need to probe deeper into utility fuel decisions and performance. The mechanism established by the Commission allows a detailed assessment of prudence to occur in a separate docket, not the fuel proceeding. (White Springs BR at 11)

White Springs challenges Witness Fetter's credibility in this proceeding, arguing that Fetter exhibited a basic lack of knowledge of the role of prudence reviews in fuel dockets in other states. For instance, Witness Fetter was unaware that the Indiana Commission regularly creates sub-dockets from its fuel recovery proceedings in order to investigate potential prudence matters. Nor was Witness Fetter aware that the New York Commission conducted prudence reviews and actually ordered refunds from eight prior years of expenditures. According to White Springs, no other state has adopted the diminished prudence review espoused by PEF. That position can not be reconciled with the Commission's statutorily established responsibilities. (White Springs BR at 11-12)

D. PEF's Argument

According to PEF, the facts support the conclusion that the Commission made determinations of the prudence of PEF's fuel costs at the final stages of its fuel clause true-up proceedings. PEF alleges that both the staff and the OPC witness testified that PEF submits sufficient information in the fuel proceedings for the Commission to make a determination of prudence. PEF states that the staff members with responsibility for the fuel docket proceedings review all this information and engage in discovery for additional information, when necessary, to determine the prudence of the utility's fuel costs. (PEF BR at 41) There is nothing more the Commission can or should do beyond what it does in the fuel proceeding to determine prudence. (PEF BR at 41)

PEF argues that there is no further Commission process for prudence determination after the Commission has determined the true-up. (PEF BR at 41) PEF explains that the fuel proceeding is a three year process and PEF's coal costs are reviewed in the fuel docket over the course of three years until they are finally trued-up. PEF asserts that OPC, Commission staff or

any other party can raise an issue of the prudence of any fuel cost during that three year period. A fuel cost is first seen by the Commission in a projection filing. Those same costs are reviewed in the next year's hearing for a true-up of the actual fuel costs for six to eight months prior to the hearing and any necessary adjustments to the cost recovery factor. Following the second hearing, there is yet a third fully litigated hearing where the full year of actual costs is trued-up against all prior projections. (PEF BR at 41-42)

According to PEF, it submitted monthly reports on its delivered fuel costs for review by Commission staff and OPC. The Form 423 and A schedules submitted to the Commission contain the very same type of information used to determine prudence. Commission staff and PEF conducted regular meetings to discuss the utility's procurement practices. Audits were conducted by Commission staff and the information from the audit was available to the Commission. PEF adds that both current and prior staff who appeared as witnesses testified that it was their job to review the information submitted by the utilities and to raise issues of prudence in reports or recommendations to the Commission in the fuel dockets. (PEF BR at 43) Both witnesses, Bohrmann and Windham, testified that staff can take discovery in the fuel docket. No one in the docket claimed that PEF did not provide information that was requested of PEF. (PEF BR at 42-45)

PEF argues that if OPC is correct, and there is no prudence review of fuel costs at the annual fuel cost recovery clause proceedings, then the fuel cost recovery clause proceedings are hollow and devoid of any real substance. (PEF BR at 46) It means that the Commission allows customers to pay billions of dollars in fuel costs without ever putting in place a process to determine prudence. PEF depicts OPC's argument that there is no finality to the fuel clause proceeding as erroneous and that such a ruling by the Commission would change the perception of Florida's regulatory environment from positive to negative. (PEF BR at 46) The lack of finality, according to PEF, would lead to uncertainty within the financial community. According to PEF, the final true-up of costs to projections in the third year of hearing is consistent with Order No. 12645, where the Commission recognized that it was fairly required to determine prudence when the relevant facts were before it. The Commission has received or has available to it all the information it needs to determine prudence. (PEF BR at 47)

E. Staff's Analysis

Although PEF reasserted the issues it raised in its prior motions seeking to dismiss the case or exclude evidence, the majority of its post-hearing brief focuses on the argument of administrative finality.[22] PEF alleges that the doctrine of administrative finality applies to the

[22] This analysis also briefly addresses the other aspects of PEF's legal challenges to the authority of the Commission to consider OPC's petition. In addition to arguing that the Commission is precluded from reaching a decision regarding PEF's prudence by the doctrine of administrative finality, PEF also reasserts that the doctrines of retroactive ratemaking, due process, and impermissible hindsight review preclude review of PEF's expenditures approved in prior fuel clause proceedings. Those arguments were raised and addressed by the Commission earlier in this proceeding. See Order Denying PEF's Motion to Dismiss, Order No. PSC-070059-PCO-EI, issued January 22, 2007; and Order Denying PEF's Motion to Strike or Alternatively Motion in Limine to Exclude Testimony, Order No. PSC-07-0270-PCO-EI, issued March 30, 2007; in this docket.

final orders for each fuel proceeding. Staff addresses PEF's administrative finality argument in detail below.

Administrative Finality

PEF argues that the issue of the prudence of PEF's coal procurement costs was decided at prior fuel clause proceedings, and that administrative finality precludes further review. Staff disagrees that there has been a final Commission decision on the prudence of PEF's coal costs. The doctrine of administrative finality applies to Commission final orders, and parties are entitled to the certainty that finality provides. See, Austin Tupler Trucking, Inc. v. Hawkins, 377 So. 2d 679 (Fla. 1979) (Commission could not reopen dormant trucking certificate case after time for reconsideration had passed).

Even when finality has attached to an order, there is a significant exception to the application of the doctrine, and finality will not apply where it is shown that some mistake, misrepresentation, or fraud, or a matter of great public interest compels Commission review. See, Peoples Gas v. Mason, 187 So. 2d 335 (Fla. 1966), where the Court prohibited review of the Commission's approval of a territorial agreement, but elucidated the exception described above. The court cautioned against a too doctrinaire approach to the application of administrative finality:

> We understand well the differences between the functions and orders of courts and those of administrative agencies, particularly those regulatory agencies which exercise a continuing supervisory jurisdiction over the persons and activities regulated. For one thing, although courts seldom if ever, initiate proceedings on their own motion, regulatory agencies such as the commission often do so. Further, whereas courts usually decide cases on relatively fixed principles of law for the principal purpose of settling the rights of the parties litigant, the actions of administrative agencies are usually concerned with deciding issues according to a public interest that often changes with shifting circumstances and passage of time. Such considerations should warn us against a too doctrinaire analogy between courts and administrative agencies and also against inadvertently precluding agency-initiated action concerning the subject matter dealt with in an earlier order.

In ratemaking proceedings, where the Commission establishes fair, just, and reasonable utility rates, the courts have been more inclined to apply the exceptions to the doctrine. See, for example, Sunshine Utilities v. Florida Public Service Commission, 577 So. 2d 663, 666 (Fla 1st DCA 1991), where the Court affirmed the Commission's decision to review a five-year-old rate order to correct going forward an "incorrect assumption." See also, Reedy Creek Utilities v. Florida Public Service Commission, 418 So. 2d 249 (Fla. 1982) (Court affirmed Commission's decision to revisit rate order), and Richter v. Florida Power Corporation, 366 So. 2d 798 (Fla 2d DCA 1979) (case arising out of the Daisy Chain fuel procurement scandal where the Court upheld the Commission's authority to review its prior rate decisions).

The application of administrative finality in ratemaking proceedings is demonstrated in the Commission's fuel clause proceedings, where the Commission's need to retain the ability to review the prudence of fuel costs precludes application of the doctrine of administrative finality until the Commission itself specifically addresses the prudence of particular costs. In Order No. 12645, the seminal order establishing policy for administration of the fuel clause, the Commission said:

> We will therefore accept any relevant proof a utility chooses to present at true-up, but we will not adjudicate the question of prudence, nor consider ourselves bound to do so until all relevant facts are analyzed and placed before us. *We will be free to revisit any transaction until we explicitly determine the matter to be fully and finally adjudicated....* An actual adjudication of prudence depends on whether an allegation of prudence was made, evidence was presented thereon and a ruling made. Where an expenditure has been disputed and its prudence examined on the record, a ruling in favor of prudence should be inferred even if none is explicitly made.

Order 12645 at p. 9 (emphasis added). Since 1983, fuel clause hearing orders have included language "that the estimated true-up amounts contained in the fuel cost recovery factors approved herein are hereby authorized subject to final true-up, and further subject to proof of the reasonableness and prudence of the expenditures upon which the amounts are based."[23]

PEF argues that by submitting records and discovery to Commission staff, it has placed sufficient evidence before the Commission to establish the prudence of its fuel costs. In fact, PEF urges the Commission to assume the burden of finding imprudence rather than requiring the utilities to prove prudence. In its brief, PEF states: "[t]here is, therefore, a three-year period in which OPC, Staff or any other party can raise an issue as to the prudence of any fuel cost." (PEF BR at 42) In other words, PEF would place the burden of questioning prudence on other parties, rather than, as Order 12645 requires, placing the burden of proving prudence on PEF.

To agree with PEF is to depart from the previous twenty-four years of Commission precedent based upon Order 12645, where the Commission said, at p. 10: "The issuance of a true-up order does not adjudicate the question of prudence per se. As pointed out by staff, the true-up hearings have never been relied upon by the Commission or any other party as the point at which prudence is actually reviewed." The Commission further explained at pages 9 and 10 of that same order: "Under the new structure, rather than explicitly considering prudence at the end of each six month period, we will consider only the question of comparing projected to actual results. Questions of prudence require careful and often prolonged study." Unless and until the Commission makes that determination of prudence, a utility cannot presume that the issue of prudence has been resolved.

PEF argues that the Commission has already determined the prudence of PEF's fuel costs at each final true-up hearing from 1996-2005. However, PEF failed to introduce any prior

[23] Order No. PSC-02-1761-FOF-EI, in Docket no. 020001-EI, issued on December 13, 2002, In re: Fuel and Purchased Power Cost Recover Clause and Generating Performance Incentive Factor.

Commission order finding PEF prudent in its coal procurement. Instead, PEF reasons that in fuel proceedings, staff had the information before it, staff engaged in discovery, staff was assigned the function of evaluating a utility's activities for prudence, and therefore the Commission must have adjudicated the issue of PEF's prudence in coal procurement practices. (PEF BR at 42-44) PEF refers to testimony from staff and former staff witnesses to characterize the type of review staff performs annually as a prudence review. (PEF BR at 43-45)

The Commission cannot delegate its rate-making authority to administrative staff. See Order No. 6986, issued October 30, 1975, in Docket No. 74807-EU, In re: Petition of Florida Power Corporation for authority to increase its rates and charges in which the Commission stated:

> In essence, Movant has predicated its request on the premise that the staff operates as the alter ego of the Commission or that the Commission delegates de facto authority to its staff to act in its stead. Such an assertion is patently incorrect for it overlooks the fact that staff members are not public officers of the State, elected or appointed. They exercise no sovereign powers of the State. They have no decisional powers, either by Statute or Rule, and no decisional powers have been delegated to them by the Commissioners. For that matter, we are unaware of any lawful basis by which such authority could be delegated.

See also, Citizens v. Wilson, 567 So. 2d 889, 892 (Fla. 1990) (in dicta the Florida Supreme Court recognized that only by specific direction could PSC staff perform the "ministerial task of seeing whether these [revised supplemental service rider] conditions were met"). Only the Commission may make a finding of prudence. Proof of the Commission's finding would be explicitly set forth in prior fuel orders, or implicitly set forth in transcripts of prior fuel proceedings. Neither were placed into the record. There is no adjudication of prudence to which administrative finality may attach.

While staff's actions do not rise to the level of an adjudication of prudence by the Commission, staff does conduct a preliminary review of the appropriateness of the recovery of costs. Staff's actions may lend credibility to PEF's argument that PEF was indeed prudent in its procurement decisions. As PEF argues in its brief, "[t]he Commission and Commission Staff, therefore, did not 'miss' something over the past decade because there was nothing to miss." (PEF BR 47) But as diligent as staff might be in attempting to uncover imprudent utility decisions, it is a difficult task, made more difficult by the fact that the utility is the one who holds all of the information. It is the responsibility of the utility to identify and specifically seek Commission approval of its decisions. As illustrated in the instant case and in the Maxine Mine case discussed below, the level of investigation needed to examine prudence can be significant and it can take several years before a question of prudence becomes apparent.

There are also times when an imprudent decision is not obvious for several years. In the Maxine Mine order, the Commission recognized that often an imprudent decision will not "come to our attention immediately. Many problems in procurement have a gradual aspect which can be perceived by the persons directly involved but not by third parties." Maxine Mine Order No. 13452 at p. 7. For instance, in Maxine Mine, the imprudence of Gulf's decision to enter into a long-term contract for coal procurement without demanding an early termination clause did not

become evident for several years, because the prices Gulf paid for Maxine Mine coal were not out of line with other coal purchased. Gulf's imprudence became obvious only when the Maxine Mine coal prices became excessive in comparison to other coal prices and Gulf could not terminate its contract. Like this case, the coal procured by Gulf from Maxine Mine went through the fuel clause and staff did not observe the imprudence of Gulf's coal procurement until 1981 when "the full attention of staff was focused on Maxine Mine." Maxine Mine, Order 13452 at p. 13.

PEF also argued that there is nothing more that the Commission can or should do beyond what it currently does in the fuel cost recovery clause proceedings to determine prudence. PEF contends that there is no further Commission process after the true-up proceeding to later determine prudence. However, this proceeding before the Commission, as well as various other prudence reviews previously conducted contradicts PEF's argument. See Order No. 18690, issued January 13, 1988, in Docket No. 860001-EI-B, In re: Investigation of Florida Power Corporation's Crystal River Unit No. 3's outages since December 1, 1982, (Upon petition of OPC, the Commission reviewed all unplanned outages at Crystal River 3 for the period 1982 to date, spanning 5 years. The Commission found FPC prudent); and Order No. 15486, issued December 23, 1985, in Docket No. 840001-EI-A, In re: Investigation into extended outage of Florida Power and Light Company's St. Lucie Unit No. 1, (Commission reviewed a decision made by FPL, 16 years prior to the Commission's order and found FPL prudent).

Hindsight Review

In its motion to dismiss, PEF argued that to consider OPC's petition requires the Commission to engage in impermissible hindsight review. Throughout its brief, PEF also states that certain evidence requires the Commission to indulge in impermissible hindsight review. As the Commission noted in its prior order denying PEF's motion to dismiss, the doctrine of hindsight review does not preclude the Commission from considering the previous actions of a utility, as long as the Commission applies the appropriate standard in reviewing those actions. That standard is whether the utility acted prudently and reasonably in light of the facts that it knew or should have known at the time it made its decision. Gulf at 1037. In Gulf, the Court reviewed the Commission's evaluation of Gulf's prior management decisions. In affirming the Commissions' finding of managerial imprudence, the Court said: "Contrary to Gulf's contentions, the commission sought to evaluate Gulf's managerial decisions *under the conditions and times they were made.*"(emphasis added). Similarly here, the Commission may review the actions of PEF to determine if its management's decisions regarding fuel procurement were prudent under the conditions and time they were made. Improper hindsight review involves applying facts as we know them today to evaluate decisions made in the past, thereby making a different course of action look preferable. In a proper prudence review the Commission considers the prudence of decisions made in the past by applying facts that were available to the company at the time of its management decision.

Retroactive Ratemaking

PEF also previously argued in its motion to dismiss and reasserted in its brief that requiring a refund of the previously approved fuel costs constituted retroactive ratemaking. In

Gulf, the Supreme Court also addressed the issue of whether review of prior decisions constitutes prohibited retroactive ratemaking. Justice McDonald opined:

> Nor do we find that the order constitutes prohibited retroactive ratemaking fuel adjustment. Fuel adjustment charges are authorized to compensate for utilities' fluctuating fuel expenses. The fuel adjustment proceeding is a continuous proceeding and operates to a utility's benefit by eliminating regulatory lag. This authorization to collect fuel costs close to the time they are incurred should not be used to divest the commission of the jurisdiction and power to review the prudence of these costs. The order was predicated on adjustments for 1980, 1981 and 1982. We find them to be permissible.

Gulf at 1037.

The Gulf case is very similar to this case. In Gulf, the Supreme Court had before it an order of the Commission requiring Gulf to refund its customers for several years of costs that had previously been allowed through the fuel clause. The only distinction between Gulf and this proceeding is that in this case the Commission is being asked to review the utilities actions over the ten prior years rather than four years. The Commission has, however, been asked to review the prudence of utility decisions as far back as sixteen years. In Order No. 15486, the Commission reviewed Florida Power and Light Company's management decisions to include thermal shields in the design of St. Lucie Unit No. 1. In Order No. 18690, the Commission reviewed the prudence of purchased power costs for PEF from 1982-1987 because of extended and repeated outages at the nuclear power plant at Crystal River 3.

Due Process

Finally, PEF has asserted that reviewing past utility decision making violates due process and is fundamentally unfair to a utility. A close review of Commission Order 12645 and its operation over the years belies PEF's argument. The Commission established the current fuel clause proceedings to eliminate the regulatory lag inherent in base rate proceedings for recovery of volatile fuel costs. It allowed the utilities to present their costs for recovery without proving prudence. PEF was on notice of this procedure from 1983 forward. PEF has often participated in Commission proceedings regarding the prudence of its prior conduct, with full knowledge that a refund could be ordered. According to Order 12645, a utility may present proof of prudence and, if the facts are before the Commission, the Commission may take the steps necessary to determine the prudence of fuel costs passed through the clause.

As OPC explained, the fuel clause benefits utilities. (OPC BR at 30) Requiring the utilities to bear the burden of proving prudence protects customers and is needed to assure fair, just and reasonable rates. The ability of the Commission to review and disallow expenses in the future protects the ratepayers. To maintain a balance between utility and ratepayer interests in fuel proceedings, the Commission must retain jurisdiction over fuel costs after final true-up.

CONCLUSION

In fuel cost recovery proceedings the Commission has specifically reserved for future decisions any issue of prudence regarding the costs that were trued-up in the fuel clause hearings. Commission precedents have clearly articulated what the fuel clause proceeding is and what it is not. According to Order 12645, the fuel clause is a comparison of a utility's projected fuel costs to the costs actually expended. It is not a prudence review. The Commission will consider prudence of fuel expenditures when the issue is brought to it by the parties but the issue of prudence of particular fuel costs will only be final when the Commission has specifically addressed the issue.

The Commission previously determined that it could hear OPC's petition without practicing retroactive ratemaking. It also determined that hearing OPC's petition did not require the Commission to improperly apply hindsight review. The Commission may make its decision regarding the conduct of the utility by reviewing the utility's actions in the light of what the utility knew or should have known at the time the utility made its decisions. The Florida Supreme Court has recognized that the fuel proceedings do not prohibit the Commission from later reviewing the prudence of prior expenditures and ordering a refund when the expenditures that were collected prove to be unjust and unreasonable. That refund does not, in the circumstance of the fuel clause proceedings, constitute retroactive ratemaking.

Finally, having taken advantage of the expedited cost recovery proceedings offered to it through the fuel clause, PEF cannot now be heard to complain that the proceedings are unfair and lacking in due process. PEF has knowledge of the existence of Order 12645 and the substantive and procedural requirements therein. It has previously participated in prudence reviews which are separate from the fuel hearings. The fact that PEF may now be responsible for the refund of monies it allegedly improperly collected does not suddenly make the process unfair.

Issue 4: If the Commission determines that PEF should be required to refund customers for coal purchased to run Crystal River Units 4 and 5, what amount should be refunded, and how and when should such refund be accomplished?

Primary Recommendation: If the Commission finds that PEF was imprudent in procuring fuel costs in 2003-2005 (Issue 1) and further finds that the Company should be required to make a refund to customers (Issue 2), then the Commission should require PEF to refund to PEF's ratepayers $13,796,073 in excessive coal costs, SO2 allowance costs, and interest incurred during 2003, 2004, and 2005. Interest should continue to accrue until the refund has been completed. This refund should be made through the utility's 2008 fuel factors. (McNulty, Slemkewicz, Draper)

Alternative Recommendation: Consistent with the Alternative staff's recommendation for Issue 1, staff does not recommend a refund. (Lester, Matlock, Sickel)

Position of the Parties

OPC: The amount of overcharges by year are:

Year	Excess Coal Costs $	Excess SO_2 Allowance Cost $	Total Excess Fuel Charges $
1996	1,056,000	N/A	1,056,000
1997	5,617,376	N/A	5,617,376
1998	7,703,136	N/A	7,703,136
1999	8,412,664	N/A	8,412,664
2000	4,884,739	1,497,278	6,382,017
2001	14,923,313	1,897,541	16,820,854
2002	20,712,248	1,410,049	22,122,297
2003	14,108,871	1,413,510	15,522,381
2004	17,603,768	4,196,799	21,800,567
2005	21,572,511	7,513,540	29,086,051
Total w/o Interest	116,594,626	17,928,717	134,523,343

The total refund is based on the beginning year selected. By 1996 the opportunity to save costs had been fully established; in that year PEF excluded subbituminous coal from its federal permit application.

PEF: The issue as to the amount of any refund is dependent on legal, factual, and policy determinations which have not yet been determined. If the Commission determines that PEF should be required to make a refund to customers, the amount should be refunded to customers through the fuel cost recovery clause over the same period of time for which the excess charges are alleged to have occurred. The balance of the refund not paid to customers should accrue interest at the 30 day commercial paper rate.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: The Commission should determine savings PEF imprudently overlooked. The refund should be amortized over a twelve month period through a reduced fuel factor beginning at the earliest practicable date.

White Springs: White Springs adopts OPC's calculation of the refund required, including interest. The refunds should be accomplished through credits to the fuel factor implemented over a period not exceeding one year.

Analysis of Parties Arguments on Amount of Refund

A. OPC Argument

In his direct testimony, OPC witness Sansom identifies PEF's excessive coal and SO2 allowance costs from 1996 through 2005. (EXH 26) OPC's refund amount is based on an analysis of the differential between CAPP and PRB coal costs, where CAPP coal costs were identified as costs actually incurred per FERC Form 423 data and PRB coal costs were OPC's assessed costs of PRB coal if the utility had purchased market-based pricing for PRB and utilized specific modes and sources of coals transportation which OPC believes were available to PEF during the time period. (EXH 27) The refund amount by OPC is further based upon a two-year increase in PRB coal volumes starting in 1996 (75/25 CAPP/PRB blend in 1996, 50/50 CAPP/PRB blend in 1997). (TR 91) Witness Sansom allows a 7.5 percent reduction in PRB volumes in 2005 to recognize rail transportation disruptions which occurred during that year. SO2 Allowance Costs are developed based on: (1) The differential in SO2 emissions between bituminous coal and PRB coal; (2) The heat content of PRB coal (8,800 btu/lb); (3) The volume of PRB coal (in MMBtu) replacing CAPP/foreign coal; and (4) The market price of SO2 allowances each year in 2003-2005. Witness Sansom provides an analysis of SO2 costs for all relevant years. (EXH 28)

B. PEF Argument

Witness Heller argues that rather than incurring excessive costs for coal procurement, the company achieved a total value of $733,323,926 in savings from 1996 to 2005 by using exclusively bituminous coals at CR4 and CR5 rather than a 50/50 blend of CAPP coal and PRB coal. (EXH 86) This total savings amount is a combination of three separate calculations: (1) Witness Heller's estimate of fuel savings ($51,376,000) assuming all fuel and operational costs but excluding replacement power costs which would result from derates due to using a 50/50 blend of CAPP and PRB coals at CR4 and CR5 during the 1996 to 2005 period, (2) Witness Crisp's estimate of the derate costs ($696,963,130) due to using a 50/50 blend, and (3) Witness Dean's offsetting SO2 allowance costs (-$15,015,204).

Witness Heller modeled savings based on a comparison of his evaluated price of PRB coal to the actual delivered price of CAPP coal for all years. For annual PRB delivered coal prices, Witness Heller utilized market information to obtain an FOB mine price for PRB coal, the cost of specific rail movements to docks on the Mississippi River, PEF-specific barge transfer costs, and the Commission approved waterborne coal transportation proxies for the remainder of the transport costs (river, terminaling, and cross-Gulf transportation). Witness Heller adjusted PRB delivered prices to derive evaluated prices in order to account for additional operation and maintenance costs due to the impact of variations in the quality of the coal on boiler operations. (TR 291) Finally, Witness Heller included the mid-point of the capital and operating costs identified by Witness Hatt associated with the capital and operating costs associated with converting CR4 and CR5 to burn a 50/50 blend of CAPP/foreign coal and PRB coal. (TR 947)

Witness Crisp estimated replacement power costs resulting from anticipated derates associated with burning a 50/50 blend of bituminous and PRB coals during the period.

The excessive SO2 allowance costs for 2003 through 2005 amount to $2,779,308. These costs are calculated based on the same procedure used by Witness Sansom except PEF's calculation includes no ash adjustment but does include an adjustment to OPC's MMBtu data. Witness Dean provides an analysis of SO2 costs for all relevant years. (EXH 97)

C. Primary Staff Analysis

Primary staff agrees with alternative staff's recommendation that PEF was prudent in its coal purchases from 1996 through 2002. Thus, primary staff believes that no refund is warranted for coal purchases occurring in those years. Primary staff believes that PEF's management acted prudently in its decisions to not purchase PRB coal during those years. Thus, consistent with our analysis in Issue 1, primary staff believes the appropriate refund amount for those years is zero.

However, primary staff believes PEF's excessive coal costs in 2003 through 2005, inclusive of SO2 emissions costs, as shown on Attachment A of this recommendation, amount to $12,418,560. These costs were calculated based on:

- Waterborne delivery of 2.4 million tons of coal per year from IMT to Crystal River, based on an 80/20 blend of CAPP/foreign coal to PRB coal for CR4 and CR5, including 480,000 PRB coal tons per year for 2003 and 2004, and 444,000

PRB coal tons in 2005 (thereby taking into account waterborne coal delivery constraints at Crystal River and rail transportation constraints in 2005);

- Assurance that the 480,000 tons per year of PRB coal in 2003 and 2004 does not exceed the waterborne coal supply requirements not yet contracted prior to 2003;

- A cost-effectiveness test of PRB coal for 2003, 2004, and 2005 for PEF, wherein the delivered price of CAPP/Foreign coal cost is shown to be higher than the evaluated price of PRB coal on a $/MMBtu basis;

- The PRB coal evaluated price is inclusive of those specific plant and operational incremental costs necessary for expected use of an 80/20 blend of CAPP/Foreign to PRB Coals at CR4 and CR5;

- The blending costs associated with PRB coals in Davant is included in the delivered PRB coal costs and is consistent with the PRB blending costs recognized by both OPC and PEF; and

- SO2 emissions costs based on the PRB tonnages cited above (480,000 tons per year for 2003-2004 and 444,000 tons in 2005) and PEF Witness Dean's estimates of PRB's SO2 content, heat rate, and SO2 emission allowances prices.

Each of these factors is reviewed in more detail below.

Staff accepted the testimony of Witness Heller that Crystal River transportation constraints would limit the waterborne delivery of coal to CR4 and CR5 to 2.4 million tons per year. Witness Heller said that PEF has attempted to exceed this amount but incurred operational problems when it did. No intervenor challenged this delivery constraint. An 80/20 blend of CAPP/foreign to PRB coal with the constraint of 2.4 million tons per year, blended offsite, is consistent with primary staff's analysis in Issue 1 and yields a maximum tonnage of PRB of 480,000 tons (20 percent times 2.4 million tons per year).

Primary staff examined whether PEF could reasonably have contracted for 480,000 tons of waterborne coal during 2003 through 2005 without exceeding their supply requirements not already contracted. Primary staff notes that PEF engaged in spot purchases of waterborne bituminous coal during 2003 through 2005 in amounts in excess of the PRB coal volumes necessary to achieve an 80/20 blend of CAPP/foreign coal to PRB coal. (EXH 52) PEF also engaged in new long-term contracts for waterborne bituminous coal purchases during the 2003 through 2005 period. Primary staff believes PEF could reasonably have purchased 480,000 tons of coal each year without exceeding CR4 and CR5 waterborne coal supply requirements for those years not already contracted.

A test of cost-effectiveness for PRB coal was incumbent upon PEF management in its procurement of coal for CR4 and CR5. Witness Heller modeled whether savings would have been realized using PRB and concluded there would have been savings in 2001, 2004, and 2005 if one were to assume a 50/50 blend with no derate and a 30-year recovery life for "incremental" capital requirements. (TR 948, EXH 85) In developing its own cost effectiveness analysis,

primary staff changed two basic assumptions of witness Heller's based on record evidence. First, primary staff assumed a 20 percent blend of PRB as a conservative estimate of the ratio of PRB to CAPP/foreign coal that would not result in a derate.

Second, staff estimated the percent of capital recovery requirements that would have been required had a 20 percent PRB coal blend been used. The record indicates that the capital and ongoing O&M costs for a 20 percent PRB coal blend at CR4 and CR5 would have been minimal compared to the costs required for a 50 percent PRB blend at CR4 and CR5. Primary staff's cost-effectiveness test for the 20 percent PRB coal blend, blended off-site, recognizes ten percent of the total capital costs requirements for 50/50 blend, blended on-site, per witness Heller. Primary staff selected ten percent as a reasonable approximation of the costs given the "coal blends less than 30 percent PRB" cost estimate put forth by Sargent and Lundy Coal Conversion Cost Report and PEF's estimate of PRB potential at PRB coal blends less than 30 percent at CR4 and CR5. (EXHs 74, 75, 83, 106, and TR 1026) Primary staff's adjustment to the evaluated price of PRB coal (in $/MMBtu) to account for the capital recovery requirement is the difference in the PRB evaluated price (Attachment A, Table A, Column h) and the PRB Adjusted Evaluated Price (Attachment A, Table A, Column c).

Similar to the adjustment made by witness Heller and witness Sansom, primary staff included in its cost effectiveness analysis the assumption that 7.5 percent of planned PRB coal deliveries would fail to be delivered in 2005 due to rail congestion issues. (TR 91, TR 949) Thus, instead of 480,000 tons of PRB coal delivered in 2005 to CR4 and CR5, it is assumed that only 444,000 tones of PRB coal would have been delivered.

Taking all such adjustments into account, primary staff prepared a cost effectiveness test which indicates that PRB savings were available to PEF in 2003, 2004, and 2005 totaling $9,056,256, exclusive of SO2 cost savings. (Attachment A, Table A, Column g)

Primary staff's estimate of the evaluated price difference between PRB coal and CAPP coal in 2003 is much lower than OPC's estimate ($0.43/MMBtu versus primary staff's $0.13/MMBtu, but OPC's estimate of the difference for 2004 and 2005 is only slightly lower than primary staff's ($.46/MMBtu and $.68/MMBtu versus $0.35MMBtu and $0.64MMBtu, respectfully for 2004 and 2005). (EXH 29) Primary staff believes the large gap in the price differential in 2003 between OPC and primary staff is tied to OPC's assumption that the waterborne coal transportation market price proxy would not apply in that year. Primary staff believes that the waterborne market proxy rates for evaluating PRB coal is appropriate for all years up to and including 2003.

The refund amount recommended by primary staff is restricted to the types of costs which normally flow through the fuel clause. The capital and operating costs associated with converting the power plant to burn PRB coal is not the type of costs normally recovered via the fuel clause. Thus, the excess coal cost as calculated above ($9,056,256), while useful for purposes of a cost-effectiveness test, is not the correct refund amount. Instead, the correct amount for purposes of cost recovery, hence refund, is the differential in the delivered costs of CAPP/foreign coal and the evaluated costs of PRB coal for 2003 through 2005, as shown in Attachment A. For purposes of cost recovery, primary staff removes the operational and capital costs required to upgrade CR4 and CR5 to burn PRB, because these types of costs are normally

recovered via base rates. Using this calculation, the excessive coal cost refund amount for 2003-2005, exclusive of excess costs related to SO2 emissions, is $9,797,568.

The excess SO2 emissions costs are based on witness Dean's SO2 estimate of SO2 per MMBtu, primary staff's estimated tons of PRB coal, Witness Dean's heat rate of PRB coal equal to 8,800 btu/lb, and Witness Dean's allowance price per ton. (EXH 97) Since primary staff's excess SO2 emissions costs are calculated to be $2,655,889, the total excess coal and SO2 emissions costs for 2003-2005 are $12,453,457. (Attachment A, Table B, Column i and Attachment A, Table C, Column i)

Based on the recommended refund amounts of $1,663,918 for 2003, $4,031,724 for 2004, and $6,757,815 for 2005, staff has calculated interest of $1,342,616 through May 31, 2007. This calculation, shown on Attachment B, has been computed in accordance with Proposed Stipulation 1 in Order No. PSC-07-0266-PHO-EI. Interest should continue to be accrued until the refund has been completed.

PEF, FIPUG, and White Springs agree that if the Commission determines that PEF should be required to make a refund, the amount should be refunded through the fuel clause. (PEF BR at 52, FIPUG BR at 4, White Springs BR at 15). At issue is over what period the refund should be accomplished. PEF states the amount should be refunded to customers over the same period of time for which the excess charges are alleged to have occurred. (PEF BR at 52) Both FIPUG and White Springs take the position that the refund should be accomplished over a one-year period. (FIPUG BR at 4, White Springs BR at 15)

Based on the recommended refund amount in the primary staff recommendation of $13,796,073 (refund amount plus interest), staff believes it is reasonable to require PEF to refund this amount over a 12-month period through the 2008 fuel factors.

In the November 2006 fuel hearing, the Commission approved $2,095,303,822 as the projected net fuel and purchased power cost recovery amount to be included in the 2007 fuel factors, resulting in a levelized fuel factor of 5.132 cents per KWH.[24] The recommended refund amount in the primary staff recommendation ($13,796,073) represents 0.66 percent of the total amount approved for PEF to recover in its 2007 fuel factors ($2,095,303,822). Reducing the Commission-approved 2007 levelized fuel factor of 5.132 c/KWH by 0.66 percent would result in a levelized fuel factor of 5.098 c/KWH, or a 0.034 c/KWH reduction. Staff believes that the magnitude of the impact on the 2008 fuel factor will be similar, and therefore believes it is reasonable to require PEF to refund the refund amount over a 12-month period through the 2008 fuel factors.

If the Commission approves the alternative staff recommendation, this issue is moot.

[24] See Order No. PSC-06-1057-FOF-EI, issued on December 22, 2006, Docket No. 060001-EI, In Re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor, at p 11

Issue 5: If the Commission determines that PEF willfully violated any lawful rule or order of the Commission or any provision of Chapter 366, Florida Statutes, should the Commission impose a penalty on PEF, and what should be the amount of such penalty?

Recommendation: No. No party identified a rule, order or statute administered by the Commission that PEF failed to implement or comply with for the period 1996 through 2005. Therefore, the Commission should not impose any fines or penalties. (Bennett, Young, Holley)

Position of the Parties

OPC: No position.

PEF: No. PEF's coal purchases for CR4 and CR5 have been reasonable and prudent. Thus there is no basis for any refund of any fuel charges recovered through the fuel clause, and accordingly there is no basis for any penalty. Furthermore, the Commission can only impose a penalty upon a showing that a utility willfully violated a statute or a Commission order or rule. There has been *no* showing that PEF has violated any such statute, order, or rule. Indeed, no party has even identified the statute, order, or rule which it claims that PEF violated.

AARP: Yes. Chapter 366, F.S. and the Commission's relevant fuel adjustment orders require that all rates and charges demanded or received by any public utility for any service rendered shall be fair and reasonable. An intentional or willful act to financially harm customers in order to benefit a corporate parent or affiliate is not "fair and reasonable." Section 366.095, F.S. provides that the Commission may penalize a utility for willfully violating a lawful rule or order or law. Commission precedent and case law support a penalty.

AG: The Attorney General takes no position on this issue.

FIPUG: Yes. If the Commission finds that the potential savings were overlooked in order to enhance non regulated affiliate profits a penalty based upon the nature of the misfeasance should be imposed over and above interest. Interest at the commercial paper rate normally used by the Commission falls short of the mark as it would only penalize discovered overcharges with the cost of cheap debt available to highly rated corporations.

White Springs: If the Commission determines that PEF willfully violated a rule or order of the Commission or provision of Chapter 366, Florida Statutes, by purchasing more expensive affiliate-supplied coal or coal products than reasonably available non-affiliate coal, further Commission action is warranted, and White Springs adopts AARP's position on this issue.

Analysis of Parties Arguments on Penalty

A. AARP's Argument

AARP conceded that its case for a penalty is dependent upon the Commission accepting OPC's case that PRB coal should have been purchased and that PEF knowingly chose not to. AARP argues that PEF favored its affiliated companies at the expense of ratepayers. AARP acknowledges that only if the Commission determines that PEF knew that a lower priced fuel was available to it but intentionally continued to purchase higher priced coal and synfuel, then a penalty would be warranted to deter future conduct of this type by PEF or any other utility. According to AARP, to find that a penalty is appropriate in this case, the Commission must determine that PEF set out to cheat its customers by charging them higher fuel costs than were otherwise reasonably obtainable and that it did so for the benefit of its affiliates. AARP argues that OPC made the case that PEF devised a scheme to cheat its customers. (AARP BR at 1-2)

AARP asserts that the statutory basis for the Commission to impose a penalty under the facts of this case is found in Sections 366.095, 366.03, and 366.07, Florida Statutes. Section 366.095 Florida Statutes, allows the Commission to impose penalties if a utility is found to have refused to comply with, or willfully violated any rule, or order of the Commission, or of any provision of chapter 366. According to AARP, PEF has a statutory duty to not intentionally overcharge its customers. The specific statutory duty is set forth in section 366.03 and 366.07 where the legislature states that rates shall be fair and reasonable. When it knowingly charged its customers higher than reasonable fuel charges in order to benefit its corporate affiliates, PEF intentionally and willfully failed to comply with chapter 366. (AARP BR at 4)

AARP's witness Stewart testified at hearing that the Commission has previously imposed an equity penalty in a rate case with Gulf Power Company. (TR 1106-1108) The penalty in that case, according to AARP, was for mismanagement in connection with "corrupt practices that took place at Gulf Power Company from the early 1980s through 1988...." According to AARP, the Florida Supreme Court upheld the penalty imposed on Gulf Power Company as long as the penalty did not "impose a penalty that would deny Gulf Power a reasonable rate of return." Gulf Power Company v. Wilson, 597 So.2d 270, 273 (Fla. 1992). (AARP BR at 5)

AARP asserts that although the Gulf v. Wilson case came from a base rate proceeding before the Commission, there is nothing to preclude the Commission from penalizing a utility outside of base rate proceedings. (AARP BR at 5) Such a limitation, argues AARP, would severely limit the Commission since most of the rates charged by electric utilities are now recovered through fuel and other adjustment charges. If the Commission is prevented from punishing a utility for mismanagement, a "safe harbor" is provided to utilities. (AARP BR at 6)

AARP asserts that OPC has made a highly credible case that PEF has overcharged its customers by purchasing more expensive coal from its affiliated companies, by purchasing synfuel from its parent corporation, and by using transportation provided by affiliated companies. In addition to the refund of overcharges, the Commission should impose a meaningful statutory penalty to deter PEF and other utilities from attempting the same conduct in the future.

B. White Springs Argument

If the Commission finds that PEF willfully violated a rule or order of the Commission or a provision of Chapter 366, Florida Statutes, then further Commission action is warranted, and White Springs adopts AARP's position on this issue.

C. PEF's Argument

PEF states that AARP witness Stewart applied the wrong standard when he states that if the Commission finds that PEF acted intentionally against its ratepayers and that it is necessary to discourage the utility from future misconduct, the Commission may impose a penalty. All parties agree that the Commission can impose a penalty only upon a finding that a willful violation of any lawful Commission order, Commission rule or statute has occurred. The Commission has no other legal basis to impose a penalty against PEF. (PEF BR at 48)

PEF argues that for a violation to be willful, there must be a specific provision that was allegedly violated. The witness for AARP failed to identify any statute, rule, or order, and just made a generic allegation that PEF violated chapter 366. According to PEF, the Gulf v. Wilson case cited by AARP does not affirm the Commission's authority to establish a penalty. Just the opposite, the Court found that the reduction of points was not a penalty. Accordingly, lacking any authority but that expressly stated in Section 366.095, Florida Statutes, AARP fails to make a case for a penalty being imposed against PEF. (PEF BR at 49)

D. Staff Analysis

The imposition of fines and comparable penalties pursuant to Chapter 350, or Section 366.095, Florida Statutes, is limited to instances where a utility refuses to comply or willfully violates any rule, order, or statute administrated by the Commission. Neither OPC, nor AARP has presented evidence to support that PEF willingly or knowingly charged its customer's unfair or unreasonable rates. Neither OPC nor any other party has successfully demonstrated that PEF's actions were part of an overall scheme designed to cheat its customers while benefiting its parent company and affiliates. Further, no one has identified a rule, order or statute administrated by the Commission that PEF failed to implement or comply with.

The case cited by AARP, Gulf Power Co v. Wilson, 597 So. 2d 270 (Fla. 1992) is distinguishable from the case at hand. That case involved a base rate proceeding. In a base rate proceeding, the Commission is charged with evaluating management efficiency. The Commission found that the management of Gulf was particularly inefficient and downgraded the rate of return, deducting 50 points. The Supreme Court of Florida, in confirming the Commission's actions, specifically found that deducting points for management inefficiency is not a penalty. Id. The Commission's decision was therefore permissible.

Staff recommends that the Commission should not impose a fine or penalty in this case. The record evidence does not support it.

CONCLUSION

Nothing in the record gives rise to a finding that PEF knowingly or willfully violated a commission rule, order or a statute. No penalty should be charged.

Issue 6: Should this docket be closed?

Position of the Parties

OPC: If the Commission closes this docket it should state clearly that parties may pursue related issues for years following 2005 in true-up proceedings or other appropriate proceedings.

PEF: Yes.

AARP: AARP adopts the position of the Office of Public Counsel.

AG: The Office of the Attorney General adopts and supports the position of the Public Counsel on this issue.

FIPUG: Yes upon completion of the refund.

White Springs: Yes. The docket should be closed following completion of all refunds to consumers.

Recommendation: The docket should be closed after the time for filing an appeal has run. (Bennett)

Staff Analysis: The docket should be closed 32 days after issuance of the order, to allow the time for filing an appeal to run.

Excess 2003-2005 Coal and SO2 Costs at CR4 and CR5 and Recommended Fuel Refund (Primary Staff, Issue 4)

A. Excess 2003-2005 Coal Costs at CR4 and CR5 and Recommended Fuel Refund (exclusive of SO2 credit adjustment and interest adjustment)

a	b	c	d	e	f	g	h	i
Year	CAPP/Foreign Delivered Price ($/MMBtu)	PRB Adjusted Evaluated Price ($/MMBtu)	Price Difference ($/MMBtu)	Maximum PRB Tons	MMBtu	Excess Coal Costs (adjusted)	PRB Coal Eval. Price ($/MMBtu)	Coal Costs Refund (via Fuel Clause)
2003	2.73	2.60	0.13	480,000	8,448,000	$1,098,240	2.57	$1,351,680
2004	2.63	2.28	0.35	480,000	8,448,000	$2,956,800	2.25	$3,210,240
2005	3.07	2.43	0.64	444,000	7,814,400	$5,001,216	2.40	$5,235,648
TOTAL EXCESS COAL COSTS, 2003-2005						$9,056,256		$9,797,568

b : EXH 85, Column 4 , or Witness Heller's delivered price of CAPP/Import Coal to CR4 and CR5

c : EXH 84, Column 10 + 0.1(Column 11), or Witness Heller's evaluated PRB coal price plus Primary Staff's adjustment to recognize estimated capital recovery requirement.

d : b - c

e : 20% of 2.4 Mmtpy, or the barge limit of PRB tons for CR4 and CR5 per Witness Heller, with 7.5% reduction for 2005 (TR 926)

f : Column E tons x 2,000 lb/ton x .0088 MMBbtu/lb, equal to the MMBtus derived from PRB coal at 20% blend

g : d x f (establishes that PRB was cost-effective to buy)

h : EXH 84, Column 10, or Witness Heller's evaluated PRB coal price

i: (b - h) x f, or Primary Staff's calculated excess costs incurred via the Fuel Clause and ECRC

ATTACHMENT A
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B. Excess 2003-2005 Costs Related to SO2 Allowances at CR4 and CR5 and Recommended Fuel Refund

a	b	c	d	E	f	g	h	il
Year	Increased SO2 (lbs per MMBtu)	MMBtu	Excess SO2 tons	SO2 Price ($/ton)		Excess SO2 Cost		SO2 Allowance Refund (via ECRC)
2003	0.42	8,448,000	1,774	176		$312,238		$312,238
2004	0.44	8,448,000	1,859	442		$821,484		$821,484
2005	0.43	7,814,400	1,680	906		$1,522,167		$1,522,167
TOTAL EXCESS SO2 COSTS, 2003-2005						$2,655,889		$2,655,889

b : EXH 97, Column 3, or Witness Dean's calculated difference in SO2 lbs/MMBtu between bituminous and PRB Coals
c: MMBtu obtained by 480,000 tons of PRB with heat rate of 8,800 btu/lb (see table at top of page)
d : (b x c)/2,000 lbs.
e : EXH 97, Column 6, or Witness Dean's SO2 allowance price per ton
g and i : d x e (Given "Excess Coal Costs" as shown above, this further establishes PRB was cost effective to buy)

C. Excess 2003-2005 Coal and SO2 Costs and Recommended Fuel Refund

a	b	c	d	e	f	g	h	i
Year						Excess Coal / SO2 Costs (adjusted)		Coal / SO2 Cost Refund Total
2003						$1,410,478		$1,663,918
2004						$3,778,284		$4,031,724
2005						$6,523,383		$6,757,815
TOTAL EXCESS COAL AND SO2 COSTS (ADJUSTED) AND FUEL REFUND (exclusive of interest adjustment)						$11,712,145		$12,453,457

Progress Energy Florida, Inc.
Docket No. 060658-EI
Interest Calculation

Month	Beginning Balance	Monthly Excess Fuel Charge	Average Monthly Balance	Annual Interest Rate	Monthly Interest	Ending Balance
Jan-96	$0	$0	$0	5.605 percent	$0	$0
Feb-96	0	0	0	5.365 percent	0	0
Mar-96	0	0	0	5.415 percent	0	0
Apr-96	0	0	0	5.450 percent	0	0
May-96	0	0	0	5.400 percent	0	0
Jun-96	0	0	0	5.460 percent	0	0
Jul-96	0	0	0	5.485 percent	0	0
Aug-96	0	0	0	5.425 percent	0	0
Sep-96	0	0	0	5.420 percent	0	0
Oct-96	0	0	0	5.410 percent	0	0
Nov-96	0	0	0	5.415 percent	0	0
Dec-96	0	0	0	5.700 percent	0	0
Jan-97	0	0	0	5.700 percent	0	0
Feb-97	0	0	0	5.440 percent	0	0
Mar-97	0	0	0	5.585 percent	0	0
Apr-97	0	0	0	5.680 percent	0	0
May-97	0	0	0	5.610 percent	0	0
Jun-97	0	0	0	5.610 percent	0	0
Jul-97	0	0	0	5.600 percent	0	0
Aug-97	0	0	0	5.570 percent	0	0
Sep-97	0	0	0	5.545 percent	0	0
Oct-97	0	0	0	5.530 percent	0	0
Nov-97	0	0	0	5.565 percent	0	0
Dec-97	0	0	0	5.675 percent	0	0
Jan-98	0	0	0	5.625 percent	0	0
Feb-98	0	0	0	5.515 percent	0	0
Mar-98	0	0	0	5.540 percent	0	0
Apr-98	0	0	0	5.540 percent	0	0
May-98	0	0	0	5.515 percent	0	0
Jun-98	0	0	0	5.550 percent	0	0
Jul-98	0	0	0	5.580 percent	0	0
Aug-98	0	0	0	5.540 percent	0	0
Sep-98	0	0	0	5.370 percent	0	0
Oct-98	0	0	0	5.160 percent	0	0
Nov-98	0	0	0	5.300 percent	0	0
Dec-98	0	0	0	5.200 percent	0	0
Jan-99	0	0	0	4.855 percent	0	0
Feb-99	0	0	0	4.830 percent	0	0
Mar-99	0	0	0	4.865 percent	0	0
Apr-99	0	0	0	4.840 percent	0	0
May-99	0	0	0	4.825 percent	0	0
Jun-99	0	0	0	4.950 percent	0	0

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Interest Calculation

Month	Beginning Balance	Monthly Excess Fuel Charge	Average Monthly Balance	Annual Interest Rate	Monthly Interest	Ending Balance
Jul-99	0	0	0	5.075 percent	0	0
Aug-99	0	0	0	5.210 percent	0	0
Sep-99	0	0	0	5.310 percent	0	0
Oct-99	0	0	0	5.300 percent	0	0
Nov-99	0	0	0	5.425 percent	0	0
Dec-99	0	0	0	5.575 percent	0	0
Jan-00	0	0	0	5.700 percent	0	0
Feb-00	0	0	0	5.800 percent	0	0
Mar-00	0	0	0	5.935 percent	0	0
Apr-00	0	0	0	6.125 percent	0	0
May-00	0	0	0	6.375 percent	0	0
Jun-00	0	0	0	6.575 percent	0	0
Jul-00	0	0	0	6.540 percent	0	0
Aug-00	0	0	0	6.490 percent	0	0
Sep-00	0	0	0	6.490 percent	0	0
Oct-00	0	0	0	6.495 percent	0	0
Nov-00	0	0	0	6.570 percent	0	0
Dec-00	0	0	0	6.575 percent	0	0
Jan-01	0	0	0	6.025 percent	0	0
Feb-01	0	0	0	5.350 percent	0	0
Mar-01	0	0	0	5.075 percent	0	0
Apr-01	0	0	0	4.685 percent	0	0
May-01	0	0	0	4.155 percent	0	0
Jun-01	0	0	0	3.870 percent	0	0
Jul-01	0	0	0	3.775 percent	0	0
Aug-01	0	0	0	3.610 percent	0	0
Sep-01	0	0	0	3.070 percent	0	0
Oct-01	0	0	0	2.445 percent	0	0
Nov-01	0	0	0	2.130 percent	0	0
Dec-01	0	0	0	1.910 percent	0	0
Jan-02	0	0	0	1.775 percent	0	0
Feb-02	0	0	0	1.760 percent	0	0
Mar-02	0	0	0	1.775 percent	0	0
Apr-02	0	0	0	1.775 percent	0	0
May-02	0	0	0	1.760 percent	0	0
Jun-02	0	0	0	1.760 percent	0	0
Jul-02	0	0	0	1.740 percent	0	0
Aug-02	0	0	0	1.720 percent	0	0
Sep-02	0	0	0	1.735 percent	0	0
Oct-02	0	0	0	1.705 percent	0	0
Nov-02	0	0	0	1.475 percent	0	0
Dec-02	0	0	0	1.295 percent	0	0

Progress Energy Florida, Inc.
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Interest Calculation

Month	Beginning Balance	Monthly Excess Fuel Charge	Average Monthly Balance	Annual Interest Rate	Monthly Interest	Ending Balance
Jan-03	0	138,660	69,330	1.280 percent	74	138,734
Feb-03	138,734	138,660	208,064	1.260 percent	218	277,612
Mar-03	277,612	138,660	346,942	1.215 percent	351	416,623
Apr-03	416,623	138,660	485,953	1.185 percent	480	555,763
May-03	555,763	138,660	625,093	1.200 percent	625	695,048
Jun-03	695,048	138,660	764,378	1.105 percent	704	834,412
Jul-03	834,412	138,660	903,741	1.025 percent	772	973,843
Aug-03	973,843	138,660	1,043,173	1.055 percent	917	1,113,420
Sep-03	1,113,420	138,660	1,182,750	1.060 percent	1,045	1,253,125
Oct-03	1,253,125	138,660	1,322,455	1.055 percent	1,163	1,392,947
Nov-03	1,392,947	138,660	1,462,277	1.025 percent	1,249	1,532,856
Dec-03	1,532,856	138,660	1,602,186	1.030 percent	1,375	1,672,891
Jan-04	1,672,891	335,977	1,840,880	1.045 percent	1,603	2,010,471
Feb-04	2,010,471	335,977	2,178,460	1.005 percent	1,824	2,348,273
Mar-04	2,348,273	335,977	2,516,261	0.980 percent	2,055	2,686,305
Apr-04	2,686,305	335,977	2,854,293	1.005 percent	2,390	3,024,672
May-04	3,024,672	335,977	3,192,661	1.035 percent	2,754	3,363,403
Jun-04	3,363,403	335,977	3,531,391	1.185 percent	3,487	3,702,867
Jul-04	3,702,867	335,977	3,870,856	1.400 percent	4,516	4,043,360
Aug-04	4,043,360	335,977	4,211,349	1.535 percent	5,387	4,384,724
Sep-04	4,384,724	335,977	4,552,713	1.685 percent	6,393	4,727,094
Oct-04	4,727,094	335,977	4,895,082	1.855 percent	7,567	5,070,638
Nov-04	5,070,638	335,977	5,238,626	2.080 percent	9,080	5,415,695
Dec-04	5,415,695	335,977	5,583,684	2.280 percent	10,609	5,762,281
Jan-05	5,762,281	563,151	6,043,857	2.420 percent	12,188	6,337,621
Feb-05	6,337,621	563,151	6,619,197	2.575 percent	14,204	6,914,976
Mar-05	6,914,976	563,151	7,196,551	2.715 percent	16,282	7,494,409
Apr-05	7,494,409	563,151	7,775,985	2.880 percent	18,662	8,076,223
May-05	8,076,223	563,151	8,357,799	3.020 percent	21,034	8,660,408
Jun-05	8,660,408	563,151	8,941,984	3.165 percent	23,584	9,247,144
Jul-05	9,247,144	563,151	9,528,719	3.350 percent	26,601	9,836,896
Aug-05	9,836,896	563,151	10,118,472	3.535 percent	29,807	10,429,855
Sep-05	10,429,855	563,151	10,711,430	3.715 percent	33,161	11,026,167
Oct-05	11,026,167	563,151	11,307,742	3.910 percent	36,844	11,626,162
Nov-05	11,626,162	563,151	11,907,738	4.120 percent	40,883	12,230,197
Dec-05	12,230,197	563,151	12,511,772	4.255 percent	44,365	12,837,713
Jan-06	12,837,713	0	12,837,713	4.405 percent	47,125	12,884,838
Feb-06	12,884,838	0	12,884,838	4.520 percent	48,533	12,933,371
Mar-06	12,933,371	0	12,933,371	4.655 percent	50,171	12,983,541
Apr-06	12,983,541	0	12,983,541	4.870 percent	52,692	13,036,233
May-06	13,036,233	0	13,036,233	4.985 percent	54,155	13,090,388
Jun-06	13,090,388	0	13,090,388	5.150 percent	56,180	13,146,567
Jul-06	13,146,567	0	13,146,567	5.325 percent	58,338	13,204,905

Progress Energy Florida, Inc.
Docket No. 060658-EI
Interest Calculation

Month	Beginning Balance	Monthly Excess Fuel Charge	Average Monthly Balance	Annual Interest Rate	Monthly Interest	Ending Balance
Aug-06	13,204,905	0	13,204,905	5.315 percent	58,487	13,263,392
Sep-06	13,263,392	0	13,263,392	5.265 percent	58,193	13,321,585
Oct-06	13,321,585	0	13,321,585	5.265 percent	58,448	13,380,033
Nov-06	13,380,033	0	13,380,033	5.260 percent	58,649	13,438,682
Dec-06	13,438,682	0	13,438,682	5.260 percent	58,906	13,497,589
Jan-07	13,497,589	0	13,497,589	5.265 percent	59,221	13,556,809
Feb-07	13,556,809	0	13,556,809	5.260 percent	59,424	13,616,233
Mar-07	13,616,233	0	13,616,233	5.260 percent	59,684	13,675,918
Apr-07	13,675,918	0	13,675,918	5.260 percent	59,946	13,735,864
May-07	13,735,864	0	13,735,864	5.260 percent	60,209	13,796,073
TOTAL		$12,453,457			$1,342,616	**$13,796,073**