BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060162-EI

In the Matter of:

PETITION BY PROGRESS ENERGY FLORIDA, INC. FOR APPROVAL TO RECOVER MODULAR COOLING TOWER COSTS THROUGH ENVIRONMENTAL COST RECOVERY CLAUSE.

_____/

ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE
A CONVENIENCE COPY ONLY AND ARE NOT
THE OFFICIAL TRANSCRIPT OF THE HEARING,
THE .PDF VERSION INCLUDES PREFILED TESTIMONY.

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. MCMURRIAN
DATE:	Tuesday, May 1, 2007
TIME:	Commenced at 9:40 a.m. Concluded at 10:10 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, RPR, CRR Official FPSC Reporter (850) 413-6734

APPEARANCES:

GARY V. PERKO, ESQUIRE, Hopping Law Firm, Post Office Box 6526, Tallahassee, Florida 32314, appearing on behalf of Progress Energy Florida, Inc.

JOSEPH McGLOTHLIN, ESQUIRE, Office of Public Counsel, c/o The Florida Legislature, 111 West Madison Street, Room 812, Tallahassee, Florida 32399-1400, appearing on behalf of the Citizens of the State of Florida.

MARTHA BROWN, ESQUIRE, and LISA BENNETT, ESQUIRE, FPSC General Counsel's Office, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, appearing on behalf of the Commission Staff.

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
1	Comprehensive Exhibit List	77	77
2	Staff Composite Exhibit - Stipulated	77	77
3	JP-1	77	77
4	JP-2	77	77
5	TL-1	77	77
6	TL-2	77	77
7	TL-3	77	77
8	TAH-1	77	77
9	PWM-1	77	77
10	PWM-2	77	77
11	JP-3	77	77

P R O C E E D I N G S

CHAIRMAN EDGAR: All right. Good morning all. Call this hearing to order.

We'll begin by asking our staff to read the notice.

MS. BROWN: By notice issued April 12th, 2007, this time and place was set for a hearing in Docket Number 060162-EI, petition by Progress Energy Florida, Inc., for approval to recover modular cooling tower costs through the environmental cost recovery clause. The purpose of the hearing is set out in the notice.

CHAIRMAN EDGAR: Thank you. And we'll take appearances.

MR. PERKO: Good morning, Madam Chair. My name is Gary Perko of the Hopping, Green & Sams Law Firm on behalf of Progress Energy Florida.

MR. McGLOTHLIN: Good morning. I'm Joe McGlothlin, Associate Public Counsel.

CHAIRMAN EDGAR: Thank you. And staff.

MS. BROWN: Martha Carter Brown and Lisa C. Bennett on behalf of the Commission.

CHAIRMAN EDGAR: Thank you.

Ms. Brown, preliminary matters.

MS. BROWN: Yes, Chairman Edgar. The parties have reached a stipulation on the procedure they wish to follow in this case, which is described in the prehearing order. After

opening statements of ten minutes a side, the prefiled testimony and exhibits and staff's composite exhibit of discovery responses can be entered into the record with the parties waiving cross-examination. When that is done, the hearing can be adjourned. The parties will file their posthearing briefs on the stipulated record and the witnesses have been excused. And I think that's all the preliminary matters we have, and could start with opening statements, if you'd like.

CHAIRMAN EDGAR: Okay. That was going to be my next question. So are we ready for opening statements?

MS. BROWN: Yes, ma'am.

CHAIRMAN EDGAR: Okay. Mr. Perko, are you ready?

MR. PERKO: Yes, ma'am.

CHAIRMAN EDGAR: Okay. Ten minutes each. You are recognized.

MR. PERKO: Thank you, Madam Chair, and good morning, Commissioners. Again, I'm Gary Perko on behalf of Progress Energy Florida. We appreciate this opportunity to present Progress Energy's case, albeit brief, in support of its request to recover the costs of the modular cooling tower project. Because it's been some time since the Commission originally addressed this matter in August 2006, I thought I'd start with a brief summary of the project and how we got to where we are today.

As explained in the testimony of Progress Witness Thomas Lawery, the Florida Department of Environmental Protection's industrial wastewater permit for the Crystal River plant includes a thermal limit of 96.5 degrees Fahrenheit on a three-hour rolling average on the cooling water discharge from the plant. Progress Energy is legally required to comply with this permit limit no matter what the temperature of the inlet waters are in the Gulf of Mexico.

Now in the summer of 2005 there was a dramatic increase in the temperature in the inlet Gulf water. This led Progress having to -- to having unprecedented derates of the Crystal River Units 1 and 2 in order to comply with the permit limit. When those derates occur on these baseloaded units, Progress must replace that lost generation by using more expensive oil or gas-fired units or by purchasing higher cost power on the open market. As discussed in the testimony of Progress Witness Javier Portuondo, the modular cooling towers are the most cost-effective option for minimizing derates associated with a thermal permit limit, while giving the company the flexibility to evaluate whether a permanent solution is needed for this problem, and, if so, what that permanent solution should be.

Moreover, the project is projected to result in significant fuel cost savings both cumulatively and in each of the five years the towers are expected to be in operation.

Those fuel savings are projected to exceed the estimated cost of the project, thus benefiting the company's ratepayers. I don't believe there's any question about the prudence or any issue about the prudence of the project. Rather, the issue is whether the costs are recoverable under either the ECRC or the fuel clause.

Now as you may remember back in August when the Commission first considered this matter, it was noted that Progress Energy originally sought recovery of this project under the fuel clause. We believe that request was appropriate based on long-standing Commission precedent in what you'll be hearing as Order Number 14546 which I will discuss later.

Based on discussion with staff, however, we amended our petition to seek recovery under the ECRC in light of the fact that the project was necessitated by an environmental requirement in the Crystal River permit.

Staff recommended approval of the company's petition, but after considerable discussion at the August Agenda Conference the Commission decided to set this matter for hearing specifically to determine whether the costs were recoverable under the ECRC or the fuel clause.

Now turning to the ECRC, as explained in Mr. Portuondo's testimony, the project is proper for recovery under the ECRC because it satisfies the three criteria that the Commission established in Order Number 94-044, which was the

first order that implemented the environmental cost recovery clause.

First, the costs of this project are being incurred after April 13th, 1993, when the ECRC was first enacted by the Legislature. Second, the need for this project to comply with the DEP permit was triggered after the company's last test year upon which rates are based. And, third, the costs of the project are not recovered through some other cost recovery mechanism or base rates.

I don't think there's any issue regarding the first criteria since the costs are clearly being incurred after 1993. However, OPC's witnesses argue that the project does not satisfy the second criterion because the thermal permit limit was established before the company's last rate case.

As discussed in Mr. Portuondo's direct and rebuttal testimony, however, the relevant language of Order 94-004 states, and I quote, the activity must be legally required to comply with a governmentally imposed environmental regulation that was enacted or became effective, or whose effect was triggered after the company's last test year upon which rates are based.

Now OPC's witnesses gloss over the third part of that criteria which focuses on when the effect of the environmental requirement was triggered rather than just the date it was put in place. As Mr. Portuondo's rebuttal testimony explains, the

modular cooling tower project satisfies this criteria because the need for the additional cooling water capacity to comply with the environmental requirement was triggered by the unusually high inlet water temperatures during the summer of 2005. Now those unusually high water temperatures were not fully analyzed until the company submitted its MFRs and its base rates were approved in its 2005 rate proceeding. In fact, the decision to implement the project was not made until February 2006. Thus, the project satisfies the second criteria for ECRC recovery.

Now turning to the third criteria, whether the costs are recovered through some other cost recovery mechanism or base rates, OPC's witness effectively says that she's not convinced that Progress has established that the costs are not being recovered in base rates. That opinion is simply not supported by the record. As exhibits to his direct testimony, Mr. Portuondo provides the relevant schedules from the company's MFRs in its 2005 rate case. Because the costs for this project were not included in those schedules, they demonstrate that the costs for the project were not anticipated when the company's current base rates were established. As recently as -- and although OPC's witness cautions against relying on MFRs, as recently as the 2006 annual ECRC docket this Commission has relied on MFRs in addressing whether costs were included in base rates in connection with its

consideration of FPL's request to recover costs of challenging the Clean Air Interstate Rule. So this is by no means something new for the Commission to do.

In addition, as Mr. Portuondo's rebuttal testimony explains, OPC's witness is simply wrong in suggesting that recovery of project costs would somehow contravene the company's 2005 rate case settlement. The provision of the settlement agreement the OPC witness cites precludes the company from petitioning for new surcharges. It does not prevent the company from recovering newly incurred costs under an existing cost recovery program. Moreover, Paragraph 8 of the settlement explicitly contemplates that new environmental capital costs would be recovered under the ECRC.

In summary, the project is necessary to comply with an environmental requirement whose full effect was not triggered until after the company's last rate case, and the costs of the projects are not being recovered through base rates. Therefore, the project qualifies under the three criteria for the ECRC recovery.

Now turning to the fuel clause, while we believe the project costs are recoverable through the ECRC, we also believe that given the unique nature of the significant fuel savings it could also be appropriate to recover these costs through the fuel clause. In 1985, Commission Order Number 14546 established comprehensive guidelines for the recovery of costs

to the fuel clause. In that order the Commission recognized that certain unanticipated costs are appropriate for recovery under the fuel clause on a case-by-case basis. Specifically the Commission recognized the recovery is appropriate for, and again I'll quote, fossil fuel-related costs normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers.

As I previously discussed, the costs of the modular cooling tower project were not anticipated at the time of PEF's last rate case. And as discussed in Mr. Portuondo's direct testimony, the project will result in significant fuel savings to PEF's ratepayers by avoiding derates to the Crystal River units and thereby reducing the need for higher costs -- the need to use higher cost units or to purchase more expensive power on the market. As such, the costs of the project qualify for recovery through the fuel clause under the policies set forth in Order Number 14546.

Now OPC's witness Mr. Hewson argues that the project does not qualify for recovery under that order because the project will not result in lower, what he terms, delivered fuel costs. However, nothing in Order Number 14546 or subsequent orders implementing it over the past 20 years has ever specified that projects must be directly tied to delivered fuel costs. To the contrary, as Mr. Portuondo's rebuttal explains,

in Order Number 14546 the Commission expressly sought to establish a flexible policy. In applying this flexible policy over the last 20 or so years, the Commission has not sought to limit the type of costs that are recoverable. Rather, it has sought to ensure a link between the types of costs incurred and the types of costs avoided.

An excellent example of this is the Commission's approval of FPL's request to recover costs associated with an uprate at its Turkey Point nuclear plant. The costs incurred were of a capital nature and associated with nuclear production, not fossil fuel. However, because the project would allow FPL to lower total overall fuel costs by more than the expected costs of the project, the Commission found that the project fell within the scope of Order Number 14546. This Commission precedent indicates that any costs that result in overall fuel savings are potentially subject to recovery under the fuel clause as fuel-related costs.

I would suggest that Mr. Hewson raises a red herring when he opines that if the Commission approves recovery of this project, it will have to approve recovery of virtually all O&M projects. As Mr. Portuondo explains in his rebuttal testimony, most O&M projects, including costs incurred in planned and unplanned outages, are recognized and anticipated when base rates are determined because they are meant to repair or replace existing equipment due to natural wear and tear. By

contrast, the costs of the modular cooling project were not recognized or anticipated in the cost levels used to determine the company's base rates. We're not talking about a normal foreseeable O&M project here. No one could have foreseen the unprecedented cooling water intake temperatures that necessitated this project and they were simply beyond the company's control. These are the types of volatile and unpredictable costs that the Commission previously has recognized that cost recovery clauses are designed to cover.

Now I'd like to touch upon one other point raised by OPC Witness Merchant.

CHAIRMAN EDGAR: And, Mr. Perko, you're over time, so I'll need you to wrap.

MR. PERKO: Okay. I just wanted to touch on one point that Ms. Merchant raises. She goes into great detail talking about ratemaking theory and the effect of this project on Progress's earned rate of return. And I would suggest that that discussion is irrelevant because this Commission has established specific criteria in determining whether a project is, is recoverable under the cost recovery clauses, and it has specifically rejected a rate of -- an earnings test in establishing whether costs are recoverable either under the ECRC and also under the fuel clause. And with that, Madam Chair, I'll conclude.

CHAIRMAN EDGAR: Thank you, Mr. Perko.

Mr. McGlothlin.

MR. McGLOTHLIN: Yes. Thank you.

Commissioners, in the scheme of things this docket and the amount of money involved in this docket is not as impressive as some of the other things that come your way, but the case does involve some important principles. And also from the customer standpoint a thousand small cuts can be as painful as a single large one. And we predict that if you approve this request, others will follow.

We're going to sponsor the testimony of two witnesses, Thomas Hewson and Patricia Merchant. Mr. Hewson is a civil engineer by training and has been involved as a consultant on environmental matters to the energy industry for some 30 years and has offered expert testimony in more than a dozen states. Ms. Merchant is our office's resident CPA and has substantial regulatory experience, as you're aware.

The principle that I mentioned is discussed in Ms. Merchant's testimony. It is that base rates continue to be the primary means of overseeing and regulating a regulated utility's financial condition. Base rates are designed to recover general costs as opposed to tracking a specific one, and they are designed to function in an environment of changing customer patterns, changing revenue, changing costs, with the objective of maintaining a reasonable return over time.

Cost recovery mechanisms are an exception to this

basic and fundamental ratemaking approach, and they are designed to track precisely a single item of cost. Because they are an exception they have eligibility criteria. And I think it's important for the Commission to emphasize in this case and others that it intends to police those eligibility criteria to ensure that utilities do not attempt to enlarge the scope of a cost recovery mechanism beyond the original intent. Because the effect of allowing a cost that is technically ineligible for inclusion to go through a cost recovery mechanism is to increase the customers', the size of customers' bills and is tantamount to an unwarranted and backdoor rate increase. For that reason, we ask you to take a close look at the rationale offered by the company in this case.

To begin with, the, the ECRC claim, again, the criterion is that the activity is legally required to comply with the government-imposed environmental regulation that was enacted or became effective or whose effect was triggered after the company's last test year upon which rates are based. And I agree with counsel that the question presented by this application is the meaning of the word "triggered." It's undisputed that the regulation in question has been in effect since 1988, has been continuously in effect since that time, which predates the last rate case. So the question is what does the phrase "triggered by," "triggered" mean? We contend

that triggered means that regulation is in place but the requirement to comply occurs later. And as a matter of fact, the rule that is cited in Mr. Portuondo's rebuttal testimony is of that ilk. In other words, the regulation is in place in Year A, but it says that by Year B you will do thus and so. That isn't what the company is arguing in this case. Instead, the company argues that a change in climatic conditions, in other words, the increase in temperatures is a triggering effect. We contend that that is not a triggering event, it is simply a change in operating conditions that may have the effect of increasing the costs necessary to comply with a regulation that has been in effect since 1988, and that's where the dispute focuses. And we see the question as follows: Should the Commission stretch the definition of trigger to allow the utility to flow this cost through the ECRC in case, in which case the customers' bills go up, or should it enforce the definition of eligible costs, in which case the utility absorbs those costs through base rates?

If you recall, the recovery mechanism is already a utility favoring device. It has the effect of reducing risk, ensuring recovery of the costs defined for inclusion. But to extend it to include increases in what is basically O&M would be an abuse of the clause. That would be detrimental to customers.

With respect to the fuel cost recovery clause, I hope

the Commission will take time to review the number of times in which the word "fossil" precedes "fuel" in the order that's cited by counsel, and also to take into account the example that is included in that order. The example of costs that can be flowed through the clause even though they're base rate in nature gave the example of the leasing of an oil terminal for a short-term to make possible the purchase of oil to be burned in generating units at a particularly attractive price. What we see here has reached -- is far afield from anything that, that resembles that.

Bear in mind also that the company describes the situation as follows. They are currently derating generating units in order to lessen the impact on the temperature of the water that exits the system. Economic dispatch is the norm, it's the normal objective. That means you're using the lowest cost resources available to meet customer demand. If you are derating, that means you are departing from the norm and you're imposing on the system abnormally high costs. So when a measure is designed to eliminate abnormally high costs and get back to the norm, can you really call that fuel savings? We think instead it's another example of O&M that's necessary to, to realize the objective of every utility, which is to operate efficiently.

The company also says that it has two options: It can continue to derate the unit or it can incur the costs here.

That's a bit like saying I have two options: I can buy a tire or I can continue to run on a flat.

We think that the option of derating should not be regarded as coequal with the objective of returning from an abnormally expensive situation to one in which the units are operating in economic dispatch.

So for those reasons, we think that the proposed measure fails to meet the criteria of either the environmental cost recovery clause or the fuel cost recovery clause.

And I would end simply by noting that when Ms. Merchant performs her exercise, it is not to impose an earnings test, per se, but it's to make the point that if an ineligible cost is precluded from going through a clause, that is not a harsh result for the utility because the result would be to require it to absorb those costs of base rates. And that is the third option in this case. Counsel for the utility would, would like to portray this as an either/or, being one clause or the other, but the third alternative is to tell the utility to look to its base rate earnings as it must with respect to other costs that don't qualify for inclusion. And the fact is that the, the impact on, on earnings in this case would be de minimis. And base rates continue to have a function, and the function is to ensure that the company has an opportunity to continue to achieve a fair rate of return. And in the event the impact of additional costs on that return is

to make it less than fair, then the alternative is not to abuse the cost recovery mechanism, but to seek an increase in base rates, at which time the Commission would have the opportunity to look at the totality of the company's circumstances. Thank you.

CHAIRMAN EDGAR: Thank you, Mr. McGlothlin.

Commissioners?

Ms. Brown.

MS. BROWN: We can turn to the record at this point and admit the testimony and exhibits.

Preliminarily, I would ask that you look at your staff's comprehensive exhibit list. On Page 2 we corrected the title of one exhibit. It's reflected correctly in the prehearing order, but I just wanted to point that out to you. And then before we get started, I think Mr. Perko has some changes to the testimony of one of his witnesses.

CHAIRMAN EDGAR: Okay. Mr. Perko.

MR. PERKO: Yes. Madam Chair, in order to resolve an objection that Mr. McGlothlin had to Mr. Portuondo's rebuttal testimony, we've deleted some of the exhibit that originally appeared in that testimony and changed the discussion within the testimony to reflect that. There's no real substantive change, but we just felt like it was probably easier to change that testimony and exhibit to make it clear to understand. So I've left that with each of you, with staff and the court

reporter, and I believe Mr. McGlothlin has reviewed it. I don't want to speak for him, but I think he's okay with that.

CHAIRMAN EDGAR: Mr. McGlothlin.

MR. McGLOTHLIN: I have reviewed it. It's acceptable.

CHAIRMAN EDGAR: Okay. All right. Thank you, Mr. Perko.

MS. BROWN: With that, Madam Chairman, we ask that the prefiled testimony of the witnesses identified in Section VI of the prehearing order be entered into the order.

CHAIRMAN EDGAR: Okay. The prefiled testimony of the witnesses with the substituted revised rebuttal testimony of Witness Portuondo will be entered into the record.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060162-EI

In re: Amended Petition of Progress Energy Florida, Inc.
to recover modular cooling tower costs
through the environmental cost recovery clause.

REVISED DIRECT TESTIMONY OF JAVIER PORTUONDO

July 13, 2006

Q. Please state your name and business address.

A. My name is Javier J. Portuondo. My business address is Post Office Box 14042, St. Petersburg, Florida 33733.

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

A. I am employed by Progress Energy Service Company, LLC, as Director of Regulatory Planning.

Q. What is the scope of your duties?

A. Currently, I am responsible for regulatory planning, cost recovery and pricing functions for both Progress Energy Florida (PEF or "Company") and Progress Energy Carolinas.

Q. Please describe your educational background and professional experience.

A. I received a Bachelors of Science degree in Accounting from the University of South Florida. I began my employment with Florida Power Corporation in 1985. During my 20 years with Florida Power Corporation and PEF, I have held a number of financial and accounting positions. In 1993, I became Manager, Regulatory Services, and I recently became Director, Regulatory Planning.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's request for recovery of reasonably and prudently incurred costs of modular cooling towers that PEF plans to install and operate at its Crystal River plant. Specifically, I will explain why recovery of the cooling tower costs through the Environmental Cost Recovery Clause is appropriate.

Q. Are you sponsoring any Exhibits with your direct testimony?

A. Yes. I am sponsoring the following exhibits:

- Exhibit No. __ (JP-1), which is an excerpt of Schedule C-6 of the minimum filing requirements (MFRs) that PEF submitted in its recent ratemaking proceeding in Docket No. 050078-EI;
- Exhibit No. __ (JP-2), which is an excerpt of Schedule B-8 of the MFRs submitted in Docket No. 050078-EI; and

- Exhibit No. __ (JP-3), which is a table that provides PEF's projection of fuel cost savings expected to result from the modular cooling tower project.

Q. Please briefly describe the Modular Cooling Tower Project.

A. The project involves installation and operation of modular cooling towers in order to minimize "de-rates" of PEF's Crystal River Units 1 and 2 necessary to comply with the permit limit on the temperature of cooling water discharged from the Crystal River plant ("thermal permit limit"). As discussed in more detail in the pre-filed testimony of Thomas Lawery, the project involves installation and operation of modular cooling towers in the summer months in order to reduce the discharge canal temperatures. This will enable PEF to reduce the number and extent of de-rates necessary to comply with the thermal permit limit and thereby reduce replacement fuel and purchase power costs.

Q. What is the basis for PEF's request to recover costs of the Modular Cooling Tower Project through the Environmental Cost Recovery Clause?

A. The ECRC, Section 366.8255, Florida Statues, authorizes the Commission to review and approve recovery of environmental compliance costs prudently incurred by electric utilities. In Order No. PSC-94-0044-FOF-EI, the Commission established the policy that recovery of such costs associated

with environmental compliance activities should be recoverable through ECRC if:

1) such costs were prudently incurred after April 13, 1993

2) the activity is legally required to comply with a governmentally imposed environmental regulation enacted, became effective, or whose effect was triggered after the company's last test year upon which rates are based; and

3) such costs are not recovered through some other cost recovery mechanism or through base rates.

The need for the modular cooling towers was triggered by the unusually high inlet water temperatures for extended periods during the summer of 2005. These high temperatures led to the unprecedented de-ratings of the Crystal River plants which were necessary to comply with the permit limit for the temperature of cooling water discharged from the plant.

Q. Were you involved in PEF's last ratemaking proceeding in Docket No. 050078-EI?

A. Yes. I submitted pre-filed testimony in that docket and I was responsible for the preparation of the MFRs that PEF submitted on April 29, 2005.

Q. What are the projected costs of the modular cooling tower project?

A. As Mr. Lawery explains in his testimony, the project is estimated to cost approximately $2 to $3 million per year beginning in 2006. Annual costs are expected to include rental fees and other O&M expenditures. Additionally, in 2006, PEF expects to incur one-time capital expenses of approximately $1.5 million to $2 million for initial installation.

Q. Are the costs of the modular cooling tower project recovered through the base rates established in Docket No. 050078-EI?

A. No. The modular cooling tower project was not anticipated when PEF's current base rates were established in Docket No. 050078-EI. The Company's evaluation of the project was prompted by unusually high inlet water temperatures and associated de-rates during the summer of 2005. Thus, the costs of the project were not anticipated when the Company submitted its rate case MFRs in April 2005. This is demonstrated by Exhibit Nos. __ (JP-1) and __ (JP-2).

Exhibit No. __ (JP-1) is an excerpt (page 3) from MFR Schedule C-6. Among other things, Schedule C-6 presented the Company's projected operating budget for the 2006 test year. As shown on line 12 of Exhibit No. __ (JP-1), the Company projected no rental costs associated with its fossil fuel-fired steam generating units. Had rental costs associated with the modular cooling

towers been anticipated when the MFRs were filed, such costs would have been reflected on that line.

Exhibit No. __ (JP-2) is an excerpt (page 1) from MFR Schedule B-8. That schedule presented the monthly plant balances for the projected 2006 test year. Had PEF anticipated capital expenditures associated with the cooling tower project, the resulting plant addition would have been reflected on line 26 for FERC account 314. See 18 CFR Part 101, p. 382 (4-1-05 edition) (defining account 314 to include "all costs installed of main turbine-driven units and all accessory equipment" such as the "Cooling system, including towers[.]"). However, the monthly balances shown on that line do not include any increases that would accommodate plant additions for the modular cooling towers.

The costs of the modular cooling towers also were not anticipated when the Commission approved PEF's current base rates. As noted above, the Company's evaluation of the project was prompted by record high temperatures and de-rates in the summer of 2005. The evaluation was not completed until after the Commission approved PEF's current rates in September 2005.

Q. Please describe the Company's analysis of fuel cost savings estimated as a result of the cooling tower project.

A. Fuel cost savings were analyzed based on the amount of avoided de-rates that are expected to result from the project. First, historical de-rate amounts attributable to the thermal limit were compiled for the years 2003-2005. Each hourly de-rate amount was distributed throughout the May-September period being evaluated based on the hourly load forecast for that period. The highest hourly de-rate amount recorded during the historical period was assigned to the hour with the highest projected load for the forecast period. The hour with the second highest de-rate amount was assigned to the hour with next highest projected load, and so forth. This pattern continued in order of descending de-rate volumes until each expected hour of de-rate had been assigned.

For modeling purposes, the data was summarized into a "typical" week profile for each month in the evaluation period. Avoided de-rates were capped at 330 MW based on the physical limitations of the modular cooling towers. The resulting profiles were then used as inputs to a dispatch simulation model, which projected total system costs. These costs were compared against a scenario in which no thermal de-rate parameters were imposed on the system. The difference in costs was then used to derive the $/mwh benefit of avoiding thermal de-rates. This represents gross fuel savings. Because the modular cooling towers are expected to use approximately 6 MWs of auxiliary

power, the cost of this auxiliary power was subtracted from the gross fuel savings to arrive at net fuel savings.

Q. What are the results of the fuel cost savings analysis?

A. As shown in Exhibit No. __ (JP-3), the cooling tower project is projected to result in cumulative net fuel cost savings of approximately $45 million over five years. Additionally, in each of the five years, annual fuel cost savings are projected to exceed the estimated costs of the project.

Q. How does the Company propose to recover the costs of the project?

A. PEF proposes to recover all capital and O&M costs incurred for the project. Actual costs incurred for the project would be subject to Commission review for prudence and reasonableness as they are submitted for recovery through the Environmental Cost Recovery Clause.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060162-EI

In re: Amended Petition of Progress Energy Florida, Inc.
to recover modular cooling tower costs.

DIRECT TESTIMONY OF THOMAS LAWERY

January 22, 2007

Q. Please state your name and business address.

A. My name is Thomas Lawery. My business address is 8202 West Venable Street, Crystal River, Florida 34429.

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

A. I am employed by Progress Energy Florida, Inc. (PEF) as Manager of Regional Engineering.

Q. What are your responsibilities in that position?

A. I provide engineering and technical support to the fossil power plants for PEF. This includes projects and troubleshooting for the Crystal River fossil plants, Anclote plant, Suwannee plant and Bartow plant.

Q. Please describe your educational background and professional experience.

A. I have a B.S. degree in Electrical Engineering from Florida State University and I am presently pursuing an MBA at the University of Tampa. I am a registered Professional Engineer in Florida with seventeen years experience in fossil power plant operation and design. I have been involved in financial and technical aspects of managing, evaluating and developing power generation assets.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's request for recovery of costs for installation and operation of modular cooling towers at PEF's Crystal River plant. Specifically, I will describe the modular cooling tower project, present cost estimates for the project, and describe how the Company will assess the effectiveness of the project.

Q. Are you sponsoring any exhibits with your testimony?

A. Yes. I am sponsoring Exhibit No. __ (TL-1), which is a chart that shows cooling water inlet temperatures for the summer months in 2003 through 2005, and the associated de-rates that have been necessary to ensure compliance with the permit limit for the cooling water temperature discharged from PEF's Crystal River plant during the same time period. I am also sponsoring Exhibit No. __ (TL-2), which is the Florida Department of

Environmental Protection (FDEP) industrial wastewater permit for the Cyrstal River Plant. Finally, I am sponsoring Exhibit No. __ (TL-3), which is a chart that shows cooling water inlet temperatures and unit loads for the time period May 1, 2006 through July 31, 2006. It also includes the associated amount of de-rates that have been necessary to ensure compliance with the permit limit for the temperature of the cooling water discharged from PEF's Crystal River plant during the same time period.

Q. Please describe the modular cooling tower project.

A. The project involves the installation and operation of modular cooling towers in the summer months in order to minimize "de-rates" of Crystal River Units 1 and 2 (CR-1 and CR-2) necessary to comply with the permit limit on the temperature of cooling water discharges from the Crystal River plant. The project involves installation and operation of modular cooling towers in the summer months (mid-May through mid-September) in order to reduce the discharge canal temperature. This will enable PEF to reduce the number and extent of de-rates and thereby reduce replacement fuel and purchase power costs.

The specific type and capacity of modular units were selected based upon the results of a competitive bidding process. Based on physical limitations, environmental permitting considerations and projected temperature decreases, the Company has assumed a water flow capacity of

approximately 180,000 gallons per minute for purposes of analysis. At this capacity, the rental towers would reduce hourly de-rates attributable to the thermal permit limit by approximately 330 MW.

Q. What is meant by the term "de-rate"?

A "de-rate" is a temporary reduction in the output of a generating unit. Because CR-1 and CR-2 are base-load coal units, whenever those units are de-rated PEF must replace the lost generation by using more expensive oil or gas-fired units, or by purchasing higher-cost power on the open market.

Q. Why have de-rates been necessary to comply with the thermal permit limit?

A. At PEF's Crystal River plant, water is removed from the Gulf of Mexico and used to condense turbine exhaust steam to water. The Crystal River generating units share a common discharge canal that sends the cooling water back into the Gulf of Mexico. The FDEP industrial wastewater permit for the Crystal River plant, which is provided as Exhibit No. __ (TL-2) includes a limit on the temperature of cooling water discharges (i.e., 96.5º F 3-hour rolling average). This limit must always be met regardless of the temperature of the inlet waters from the Gulf of Mexico.

The primary strategy for complying with the thermal permit limit is the operation of permanent cooling towers. Plant operation and maintenance

personnel strive to maintain a 100% availability of the towers during months of peak usage. Once the cooling capacity of the towers is reached, the only other immediate option to ensure compliance with the thermal permit limit is to de-rate CR-1, CR-2 or both. Recently, de-rates necessary to ensure permit compliance have increased due to weather conditions beyond PEF's control that have increased the temperature of inlet waters for the CR-1 and CR-2 cooling systems. As shown in Exhibit No. __ (TL-2), inlet water temperatures and associated thermal de-rates were particularly severe in the summer of 2005.

Q. In general, what are the economic effects of de-rates due to the temperature permit limit?

A. As I previously noted, whenever the Crystal River units are de-rated, PEF must replace the lost generation by using more expensive oil or gas-fired units, or by purchasing higher-cost power on the open market. De-rates due to the thermal permit limit have occurred mostly during the hottest summer days during peak demand periods when fuel and purchase power costs are at a peak. In addition, if off system sales opportunities are available during the periods when CR-1 and/or CR-2 are de-rated, those opportunities and the associated customer benefits are lost.

Q. Has the Company explored the possibility of obtaining less stringent permit conditions?

A. Yes. Based on discussions with FDEP, however, the likelihood of obtaining less stringent permit conditions is negligible and would depend upon the results of lengthy and expensive scientific studies that may prove inconclusive.

Q. Has PEF explored other alternatives to the modular cooling towers?

A. Yes. The Company evaluated and compared several alternatives, including: (a) installation of new permanent helper cooling towers; (b) installation of additional cells to the existing cooling towers; (c) enhancement of existing cooling tower fan performance to reduce recirculation and interference; and (d) installation of additional dilution pumps to dilute the temperature of the water in the discharge canal. Based on the relative efficiencies and costs of the various options, however, PEF determined that the modular cooling tower solution would be most cost-effective. Moreover, use of modular towers will enable the Company to assess whether the thermal de-rate problem is a temporary or cyclical phenomenon before costs are unnecessarily expended on a permanent solution. Unlike permanent towers, the modular towers can be easily mobilized and used at other locations if they are no longer needed at Crystal River at some point in the future.

Q. What is the status of the Modular Cooling Tower Project?

A. The Modular Cooling Towers were placed in service in June 2006, after the submittal of PEF's petition for cost recovery.

Q. How are you calculating the avoided summer de-rates?

A. We are using a model that looks at the actual measured hot water temperature in the canal and actual measured cool water temperature from the permanent helper cooling towers to predict what the POD temperature would have been without the modular cooling towers. This is hourly data from the Plant Information system for May 1 through July 31. For hours where a de-rate would have been required, the model calculates the amount of de-rate that would have been necessary in order to achieve the targeted POD temperature. The logic for the de-rate is to begin with Unit 1 and continue de-rates until the target POD temperature is achieved or the unit is de-rated to minimum load (120 MW). If more de-rates are required, the model then de-rates Unit 2 until either the target is achieved or the unit is de-rated to minimum load (120 MW).

Q. Have the Modular Cooling Towers been effective at reducing the number of summer de-rates?

A. Yes. The Modular Cooling Towers have successfully reduced the number of required de-rates for Crystal River Units 1 and 2. As illustrated in Exhibit No. _ (TL-3), PEF only had to de-rate once for thermal permit issues through the end of July 2006. The modular cooling towers are estimated to have reduced necessary de-rates by 23,955 MWhs.

Q. Can you quantify any 2006 fuel cost and net fuel cost savings attributable to this project?

A. The 2006 net fuel savings attributable to this project were calculated by using an industry standard unit commitment dispatch model. For each event where de-rates were avoided, two separate cases were modeled: one case with actual generation of CR-1 and CR-2, and another case with generation of CR-1 and/or CR-2 reduced to the extent of calculated avoided de-rates. The fuel cost differences between the cases were then calculated to arrive at the gross benefit of reduced fuel costs associated with avoided de-rates as a result of the modular cooling towers. Using this methodology, the calculation of gross benefits from avoided de-rates yields a total of $4,033,020. The value of additional auxiliary loads to power the modular cooling towers is $289,057. The net of the two numbers yields net savings of $3,743,963.

Q. What are the projected costs of the temporary cooling tower project?

A. PEF incurred approximately $516,000 capital costs and $4.6 million in O&M costs for the project during 2006. The one-time capital expenses included installation of the modular cooling towers and ancillary equipment, such as power transformers, switchgear, and cable. In future years, PEF estimates project costs of approximately $3 million to $4 million annually. The annual expenditures are expected to include O&M expenses for unit mobilization and setup, rental fees, de-mobilization, and fill replacement.

Q. What steps is PEF taking to ensure that the costs of the modular temporary cooling tower project are reasonable and prudent?

A. PEF conducted a competitive bidding process to ensure that costs were reasonable and prudent. As part of the bid evaluation process, PEF analyzed traditional leasing and lease-to-own options submitted by various bidders. After reviewing various proposals, PEF elected to go with a 5 year contract with Aggreko, LLC containing provisions allowing PEF to purchase the towers if it is determined that they are the appropriate long-term solution, or cancel the contract if it is determined this is not a long-term issue or that there is a better long-term solution based on further analysis. At this time PEF believes it is still premature to make a final determination as to the correct long-term solution.

Q. Does this conclude your testimony?

A. Yes, it does.

DIRECT TESTIMONY

OF

THOMAS A. HEWSON JR.

On Behalf Of The Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 060162-EI

I. Introduction

Q: PLEASE STATE YOUR NAME.

A: My name is Thomas A. Hewson Jr.

Q: ON WHOSE BEHALF ARE YOU SUBMITTING TESTIMONY?

A: I am testifying on behalf of the Citizens of the State Florida as represented by Florida's Office of Public Counsel (OPC).

Q: HOW ARE YOU CURRENTLY EMPLOYED?

A: Since 1981, I have been a principal at Energy Ventures Analysis, Inc (EVA), an energy consulting firm located at 1901 North Moore Street in Arlington, Virginia. Between 1976-1981, I had been employed as a project manager at Energy and Environmental Analysis Inc in Arlington, Virginia.

Q: WHAT ARE YOUR QUALIFICATIONS FOR PROVIDING YOUR TESTIMONY?

A: For 30 years, I have provided numerous reports and provided testimony on the effects of environmental requirements on the electric utility industry operations for the electric utility industry, fuel suppliers, fuel transporters, electric utility commissions and industrial trade groups. I have a Bachelor of Science in Engineering degree in Civil Engineering from Princeton University (1976). My resume is attached as Exhibit ___ (TAH-1).

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION?

A: Yes, I have. I testified previously on behalf of the Office of Public Counsel for an Environmental Cost Recovery Clause request by Tampa Electric Company as part of Commission Docket No: 050958-EI.

Q: HAVE YOU PREVIOUSLY TESTIFIED AS AN ENVIRONMENTAL EXPERT BEFORE OTHER REGULATORY BODIES?

A: Yes, I have. I have testified as an environmental expert in the energy industry in proceedings before numerous other regulatory bodies in California, Delaware, Georgia, Maine, Maryland, Massachusetts, Minnesota, Pennsylvania, South Dakota, Vermont, and Virginia. I have also testified in legislative proceedings in Idaho, Massachusetts, New Hampshire and Wisconsin as well as the US Congress. I have also testified in legal judicial proceedings in West Virginia.

Q: PLEASE DESCRIBE THE ASSIGNMENT YOU WERE GIVEN BY THE OFFICE OF PUBLIC COUNCIL.

A: EVA was asked to review the Progress Energy Florida (PEF) request for cost recovery of installation and operation of modular cooling towers at the Crystal River plant. Specifically, EVA was asked if these costs qualify for cost recovery under the Environmental Cost Recovery Clause (ECRC) or the Fuel Clause.

II. Summary

Q: PLEASE SUMMARIZE YOUR FINDINGS.

A: While the modular cooling tower project may be an appropriate response to reduce unit derates at Crystal River station during the summer months, the project is not be eligible for cost recovery under either the environmental cost recovery clause (ECRC) or the fuel clause. PEF should recover its costs for this project through base rates.

III. Environmental Cost Recovery Clause Eligibility

Q: CAN YOU SUMMARIZE BRIEFLY THE ELIGIBILITY CRITERIA FOR COST RECOVERY UNDER THE ECRC?

A: Section 366.8255 of the Florida Statutes directs the Florida Public Service Commission to permit the recovery of certain qualifying environmental compliance costs incurred by electric utilities through the Environmental Cost Recovery Clause. The Commission defined the eligibility criteria for

ECRC cost recovery projects in its Order No. PSC-9400044-FOF-EI. To qualify, an environmental project must demonstrate the following:

1. Such costs were prudently incurred after April 13, 1993;
2. The activity is legally required to comply with a government imposed environmental regulation that was enacted or became effective, or whose effect was triggered after the company's last test year upon which rates are based; and
3. Such costs are not recovered through some other cost recovery mechanism or through base rates.

Q: BASED UPON YOUR INVESTIGATION, DO YOU BELIEVE THAT THE CRYSTAL RIVER STATION'S MODULAR COOLING TOWER PROJECT MEETS THESE ELIGIBILITY CRITERIA FOR COST RECOVERY THROUGH THE ECRC ?

A: No, it does not qualify. The modular cooling tower project does not satisfy the second criterion in the order that the activity be triggered by a legally required governmentally imposed regulation that was enacted or became effective after the company's last test year upon which rates are based.

Q: THE MODULAR COOLING TOWER PROJECT IS BEING USED TO MEET WHICH GOVERNMENTAL REQUIREMENT?

A: The modular cooling tower is being used to help comply with the Crystal River station water discharge's maximum allowable temperature limitation of 96.5

degrees. This limitation is required under Section I.A.1 of the station's National Pollution Discharge Elimination System (NPDES) permit #FL0000159.

This NPDES permit limitation is not a new requirement, having been in place since 1988. This 1988 effective date predates Progress Energy Florida's last test year upon which its rates are based (2006). Therefore, this project does not meet the Commission's 2nd ECRC qualification criteria of:

> *"a government imposed environmental regulation that was enacted or became effective, or whose effect was triggered after the company's last test year upon which rates are based"*

Q: PROGRESS ENERGY ARGUES THAT THE PROJECT QUALIFIES UNDER THE ECRC BECAUSE THE EFFECT OF THE WARMER INTAKE WATER TRIGGERED THE NEED FOR ADDITIONAL COOLING WATER CAPACITY THAT WAS NECESSARY TO COMPLY WITH THE MAXIMUM TEMPERATURE LIMIT WITHOUT DERATING THE UNITS OUTPUT. DO YOU BELIEVE THAT THE WARMER INTAKE WATER IS A "TRIGGERING EVENT" AS DEFINED UNDER THE COMMISSION'S 2ND ECRC QUALIFICATION CRITERION?

A: No, I do not.

Florida Progress broad interpretation would suggest that any changes in station operating conditions (e.g. intake water temperature) that require any new measures to comply with existing environmental limitations should qualify under the ECRC. Under this line of reasoning, any future changes in fuel market conditions that would trigger different environmental compliance measures (e.g. FGD scrubbers become cost-effective with rapid low sulfur coal price escalations) should also qualify for ECRC treatment.

Such an interpretation goes far beyond the Commission's language that was very explicit. The "triggering event" clearly refers only to changes in governmental regulation requirements, not operating conditions. This language was likely adopted in response to environmental requirements that can be phased in over a several year period. Recent examples would include the Clean Air Interstate Rule (Phase I- 2009 (for NOx)/2010 (for SO2), Phase II- 2015) and Clean Air Mercury Rule (Phase I- 2010, Phase II-2018). Therefore, projects in response to the scheduled phasing in of future tighter governmental limitations under an existing rule may qualify for ECRC treatment, while changes in operating conditions to meet existing limitations do not qualify.

Since the NPDES temperature limitation has been in place since 1988, it is clearly an existing limitation that has not been changed. The warmer intake water temperature is not a change in a governmental requirement but a change in operating conditions that may require PEF to adopt new measures.

IV. Fuel Clause Eligibility

Q: PEF ALSO ATTEMPTS TO JUSTIFY RECOVERING THE PROJECT COSTS ASSOCIATED WITH THE MODULAR COOLING TOWER PROJECT THROUGH THE FUEL COST RECOVERY PROCEEDING. DO YOU HAVE ANY COMMENTS?

A: Yes. It is my understanding that the Commission in its Order #14546 indicated the fuel clause was limited to only fossil fuel-related costs. This order identified ten different categories that would be considered as eligible costs recoverable through the fuel clause. I do not consider the modular cooling tower project qualifies under any of the ten "fossil-fuel related" categories and therefore this project should not be eligible for cost recovery under the fuel clause.

Q: WHY DO YOU CONSIDER THE MODULAR COOLING TOWER PROJECT COSTS NOT TO BE "FOSSIL FUEL RELATED"?

A: The modular cooling tower project was designed specifically to reduce unit derates on Crystal River Units #1-2 that were triggered in order to maintain compliance with the maximum temperature limitation for the cooling water canal discharge. This project will not have any direct effect on the Crystal River units' delivered coal prices. Like many operation and maintenance projects, it is specifically designed to improve station performance, not lower fuel prices. As such, it would be more appropriate for project costs to be recovered through base rates.

Q: PROGRESS ENERGY ARGUES THAT THE MODULAR COOLING PROJECT MEETS THE COMMISSION CATEGORY 10 ELIGIBILITY REQUIREMENT FOR FUEL CLAUSE RECOVERY SINCE THE PROJECT WILL REDUCE SYSTEM COSTS BY REDUCING POWER PURCHASE COSTS AND/OR HIGHER PEF UNIT COSTS DURING COOLING WATER DERATING EVENTS. DO YOU AGREE?

A: No, I do not. Under Commission Order #14546, the category 10 qualification criterion was for:

> *"10. Fossil fuel related costs normally recovered through base rates but were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, would result in fuel savings to customers. Recovery of such costs should be made on a case by case basis after Commission approval."*

First, as discussed earlier, the modular cooling water project will have no direct effect on the Crystal River station's delivered fossil fuel prices.

Second, Progress Energy's argument that it will provide ratepayers savings through improved station performance (from lowering forced derating events) and avoiding higher cost power sources is not sufficient to qualify for fuel clause treatment. These more indirect fuel savings are clearly outside the Commission's

intent for inclusion in a fuel clause. If the Commission applied this test for fuel clause treatment, most operation and maintenance projects would qualify for similar fuel clause treatment since they are designed to improve unit performance and availability and thereby minimize the dependence on higher cost power sources.

The intent of the fuel clause is limited to fuel-related changes not performance related changes.

Q: DOES THAT COMPLETE YOUR TESTIMONY?

A: Yes it does.

DIRECT TESTIMONY

OF

PATRICIA W. MERCHANT, CPA

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 060162-EI

Introduction

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Patricia W. Merchant. My business address is Room 812, 111 West Madison Street, Tallahassee Florida, 32399-1400.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am a Certified Public Accountant licensed in the State of Florida and employed as a Senior Legislative Analyst with the Office of Public Counsel (OPC). I began my employment with OPC in March, 2005.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. In 1981, I received a Bachelor of Science degree with a major in accounting from Florida State University. In that same year, I was employed by the Florida Public Service Commission (PSC) as an auditor in the Division of Auditing and Financial Analysis. In 1983, I joined the PSC's Division of

Water and Sewer as an analyst in the Bureau of Accounting. From May, 1989 to February, 2005 I was a regulatory supervisor in the Division of Water and Wastewater which evolved into the Division of Economic Regulation.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION?

A. Yes, I have testified numerous times before the PSC. I have also testified before the Division of Administrative Hearings as an expert witness.

Q. ARE YOU SPONSORING AN EXHIBIT IN THIS CASE?

A. Yes. I am sponsoring the following exhibits, which are attached to my testimony:

Exhibit PWM-1 is a summary of my regulatory experience and qualifications.

Exhibit PWM-2 is an analysis of the impact that absorbing the 2006 modular cooling tower estimated capital and operating costs would have on PEF's earned return on equity for 2006.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to discuss the proper regulatory treatment of modular cooling tower costs that PEF seeks to recover either through the Environmental Cost Recovery Clause ("ECRC") or the Fuel and Purchased Power Cost Recovery Clause ("fuel clause").

Q. HAVE YOU REVIEWED PEF's PETITION FOR APPROVAL OF THE COSTS ASSOCIATED WITH THE MODULAR COOLING TOWERS IN THIS DOCKET?

A. Yes. PEF's original petition was filed on February 24, 2006 and was styled as a request for recovery of the modular cooling towers through the fuel clause. On page two of its original petition, PEF stated that the costs of the modular cooling tower project are unanticipated and will result in significant savings to its ratepayers, and asserted the costs qualify for recovery through the fuel clause pursuant to Order No. 14546. PEF subsequently revised its filing and requested authority to collect the costs through the ECRC. In its amended petition, PEF stated that this change was based on consultations with Commission staff.

Q. HOW DOES YOUR TESTIMONY RELATE TO THAT OF TOM HEWSON, WHO ALSO IS TESTIFYING FOR THE CITIZENS?

A. Citizen's witness Hewson addresses whether the costs for specific requested projects are required by new environmental law, regulation or mandate and are thus eligible for inclusion in the ECRC, or alternatively are appropriate to be recovered through the fuel clause. He and I both apply the results of his analysis to the criteria for eligibility for recovery through either of the two cost recovery clauses. In support of the result we seek, I will also testify regarding ratemaking theory and the proper roles of base rates and cost recovery clauses in designing fair and reasonable rates.

Q. ARE YOU TAKING ISSUE WITH THE PRUDENCE OF THIS PROJECT?

A. No. The company should take all reasonable efforts to make sure that it complies with all environmental regulations and that the costs that it incurs are the most economical and prudent decisions based on the circumstances that occur in maintaining and operating its plants. We have not investigated or challenged the prudence of these costs. However, a cost may be prudent and not be appropriate for recovery through a cost recovery clause. We take issue with PEF's proposal to collect the costs through a cost recovery clause rather than through base rates.

Q. WHAT ARE THE TWO MAIN TYPES OF RATE RECOVERY MECHANISMS AVAILABLE TO ELECTRIC UTILITIES?

A. The principal rate recovery mechanisms available for regulated electric utilities are base rates and special cost recovery clauses. Each recovery method has its defined role, and they are designed to work together to ensure that rates paid by customers are fair, just, reasonable and not unduly discriminatory.

Q. PLEASE DESCRIBE THE BASE RATE RECOVERY MECHANISM.

A. Base rates are designed to allow the utility the opportunity to recover its prudent operating costs and a reasonable rate of return on its investment in utility plant. In a base rate case, a test year is used to examine the levels of plant investment and operating costs that represent the levels that will be incurred when the rates go into effect. Adjustments are made to remove any

unreasonable amounts and to normalize nonrecurring or extraordinary amounts in the test year. By analyzing the data included in the utility's rate request, the Commission determines the total amount of revenues the utility should be allowed to collect and then designs rates that will generate that revenue figure.

Q. HOW DOES THE COMMISSION ALLOW THE UTILITY THE OPPORTUNITY TO RECOVER A REASONABLE RATE OF RETURN ON ITS INVESTMENT?

A. In setting rates, the Commission determines the overall rate of return on the utility's investment in its utility plant. This overall cost of capital is based on the weighted average cost of debt, equity and other sources of capital. The cost of debt and other sources of capital are determined based on stated cost rates, and the cost of equity is based on the level of profit and business risk for which utility shareholders should be compensated.

Q. HOW DOES REGULATORY THEORY ADDRESS THE SUBJECT OF DESIGNING RATES TO BE SUFFICIENT FOR FUTURE PERIODS?

A. Ratemaking principles recognize that after rates are set, the future relationships between costs and revenues will change from those levels used in setting the rates. The level of a particular cost may increase, decrease, or the cost may go away altogether. Costs that were non-existent during the test period may arise after the rates take effect. Projected revenue levels will also vary based on customer growth, changes in consumption, or a combination of both. An increase in a particular expense level does not automatically cause a

utility to earn less than its fair rate of return on its investment or to not recover the expense. In order to determine whether an increase in a single cost is affecting a utility adversely, it is necessary to consider the overall relationship of total revenues and total costs.

Q. HOW DOES ONE GAUGE WHETHER A UTILITY IS RECOVERING ALL OF ITS OPERATING COSTS AT A GIVEN POINT IN TIME?

A. If the utility's revenues exceed its expenses, including debt costs, then it has recovered all of its operating costs from customers.

Q. HOW DOES ONE GAUGE WHETHER THE RETURN ON INVESTMENT IS REASONABLE AT A GIVEN POINT IN TIME?

A. The Commission sets rates using the mid-point of the authorized rate of return on equity (ROE) and then establishes a range for the ROE. If the utility earns within the range, generally set at 100 basis points on either side of the mid-point, then the utility is earning a fair return on its investment and is recovering its prudent operating costs. If the utility is earning above or below the range on its ROE, then it is over- or under-earning, respectively.

Q. PLEASE DESCRIBE THE VARIOUS COST RECOVERY CLAUSES AVAILABLE TO ELECTRIC COMPANIES.

A. The cost recovery clauses available to electric companies are the fuel clause, the ECRC, and the Energy Conservation Cost Recovery Clause ("ECCR"). Whereas, base rates are designed to generate revenues that reflect a variety of costs, the cost recovery clauses focus on specific costs and design a rate

element or rate factor to track changes in those costs. The clauses enable companies to recover specific costs on a current basis outside of base rate considerations. Clauses provide dollar for dollar rate recovery of the specific eligible costs identified for inclusion through the true-up process as long as those costs are deemed to be prudently incurred. They are a departure from the traditional base rate mechanism, under which the rates are designed to provide the utility an opportunity, not a guarantee, to recover its prudent costs and to earn a fair return. Base rte revenues and base rate earnings may increase or decrease as relationships change. There is no "true-up" provision.

The fuel clause provides recovery to the utility for the day to day fluctuations in the cost of fuel and other volatile fuel-related costs that cannot be timely tracked and recovered in base rates. In the case of environmental costs, Section 366.8255, Florida Statutes, mandates the use of a cost recovery clause for qualifying expenditures. Pursuant to Section 366.82, Florida Statutes, the conservation clause allows utilities to recover costs to implement cost-effective demand side conservation programs. All of the cost recovery factors are reestablished annually and include projections for the prospective year. The factors also include a true-up of the current year projections based on actual and prudent expenses incurred, with over or under recoveries included in the next year's factor.

Q. WHY IS IT IMPORTANT TO LIMIT THE COSTS THAT ARE COLLECTED THROUGH A COST RECOVERY CLAUSE TO THOSE THAT ARE ELIGIBLE?

A. The reason is simple. If a cost does not legitimately meet the definition of costs that qualify for a recovery clause, it should be borne through base rates. To allow the cost to instead flow through the clause will result in an unwarranted increase in overall charges borne by customers. This unwarranted increase in revenues directly benefits shareholders, to the detriment of ratepayers.

Q. CAN YOU GIVE AN EXAMPLE TO MAKE THIS POINT?

A. Yes. Assume a utility has a rate base (a utility's net investment in utility plant) of $1 billion, a Commission-authorized fair rate of return with a range of 9% to 11%, and net income of $100 million. Assume that the Commission must consider the following: a) allow the utility to collect an additional $1 million expense normally recovered in base rates through the fuel clause or b) require the utility to absorb the expense in earnings achieved from base rates. Assume the achieved rate of return before the additional expense will be 10%, which is in the middle of the authorized range.

If the utility is allowed to collect the additional expense through the fuel clause, base rates will not change; but the customers will pay additional fuel revenues of $1 million. However, if the Commission denies the request to recover the expense through the clause, the utility will recover the expense through revenues generated by base rates. In this later scenario, the customers' overall bill will not go up — both fuel revenues and base rate revenues will be unchanged. The income for the period becomes $99 million instead of $100 million and the return falls from 10% to 9.9%. The return is

still well within the range of the return that the Commission established as fair and reasonable.

Because special cost recovery clause treatment enables the utility to avoid absorbing the expense through base rate earnings, the utility has a powerful financial incentive to steer as many costs as possible through recovery clauses. For this reason, the Commission should be ever vigilant for claims that new or unusual costs belong in a cost recovery clause as opposed to being absorbed in base rates.

Q. HAS THE COMMISSION ADDRESSED THE APPROPRIATE WAY TO DETERMINE WHAT TYPES OF COSTS ARE ALLOWED TO BE RECOVERED THROUGH THE ECRC?

A. Yes. By Order No. PSC-94-0044-FOF-EI[1], the Commission outlined the most appropriate way to implement the intent of the ECRC statute as follows:

> Upon petition, we shall allow the recovery of costs associated with an environmental compliance activity through the environmental cost recovery factor if:
>
> 1. such costs were prudently incurred after April 13, 1993;
>
> 2. the activity is legally required to comply with a governmentally imposed environmental regulation enacted,

[1] Order No. PSC-94-0044-FOF-EI, issued January 12, 1994, in Docket No. 930613-EI, In re: Petition to establish an environmental cost recovery clause pursuant to Section 366.0825, Florida Statutes, by Gulf Power Company.

became effective, or whose effect was triggered after the company's last test year upon which rates are based; and,

3. such costs are not recovered through some other cost recovery mechanism or through base rates.

In addition, we shall consider that all costs associated with activities included in the test year of the utility's last rate case are being recovered in base rates unless there have been new legal environmental requirements which change the scope of previously approved activities and caused costs to change from the level included in the test year. If new legal requirements cause an increase, or decrease, in costs from the level included in the test year of the utility's last rate case, the amount recovered through base rates should be the determined to be the amount included in the test year. (Order at page 6-7.)

Q. WHAT DOES CITIZEN'S WITNESS HEWSON SAY REGARDING THE MODULAR COOLING TOWER PROJECT AND WHETHER THOSE COSTS QUALIFY FOR RECOVERY UNDER THE ECRC?

A. Mr. Hewson concludes that the cooling towers are intended to help PEF comply with a requirement that predated the passage of the statute and the company's last rate case. Further, the effect of the requirement was not "triggered" after PEF's last rate case.

Q. WHAT IS THE IMPORT OF THE RESULTS OF MR. HEWSON'S ANALYSIS?

A. The cost does not satisfy any of the commission's eligibility criteria. They do not belong in the ECRC.

Q. PEF WITNESS PORTUONDO TESTIFIES THAT THE MODULAR COOLING COSTS WERE NOT RECOVERED THROUGH BASE RATES ESTABLISHED IN DOCKET NO. 050078-EI BECAUSE THE PROJECT WAS NOT ANTICIPATED AT THAT TIME. DO YOU AGREE WITH THIS STATEMENT?

A. I disagree with the premise that only if a cost was reflected as a specific line item in the last test year is it being recovered through base rates. As I testified earlier, because base rates are designed and intended to recover all changing base rate-related costs of whatever description, as long as the utility's base rate revenues exceed its expenses including debt, then it is recovering all of those expenses.

Q. DOES WITNESS PORTUONDO'S EXHIBITS JP-1 and JP-2 SHOW THAT THE MODULAR COOLING TOWER COSTS WERE NOT INCLUDED AS HE HAS TESTIFIED?

A. No. On page 6, he states that one can gleam from MFR Schedule C-6, entitled "Budgeted Versus Actual Operating Revenue and Expenses" from the last rate case docket that the modular cooling tower costs were not included. In looking at page 2 in Exhibit JP-1, all one can see is a comparison of amounts budgeted compared to actual by account title for the years 2000 to 2006. The same is true with regard to Exhibit JP-2, which reflects the monthly plant balances for the 2006 test year. This MFR schedule shows only total plant

balances and does not reflect any itemization of projects or a description of any plant additions. Without looking at the supporting detail behind either of these schedules, which is not part of the MFRs, one cannot tell what costs or activities are included in the MFRs. Based on these two exhibits, I do not believe that PEF has demonstrated that it did not estimate costs of compliance with its permit related to temperature of cooling water discharged from the Crystal River plant for base rate purposes.

Q. WHAT OTHER POINTS DO YOU HAVE REGARDING MFR PROJECTION LEVELS?

A. Basic ratemaking theory recognizes that it is impossible to project exactly what levels will be incurred after the rate case has concluded. This is precisely the basis for allowing utility companies to earn within a range of reasonableness on its rate of return on equity. Just because an item is not specifically spelled out in the company's last MFRs certainly does not mean that it cannot recover the costs and earn a fair return on its investment through base rates. That is the nature of the rate setting process and the company is adequately compensated for this risk through the rate of return on equity approved.

Q. PLEASE ADDRESS THE TYPES OF COSTS THE COMMISSION ALLOWS UTILITIES TO RECOVER THROUGH THE FUEL CLAUSE.

A. Order No. 14546, from the 1985 fuel clause docket, addresses the cost recovery method for fuel-related expenses. Prudently incurred fossil fuel-

related expenses subject to volatile changes are recovered through the fuel clause. Specifically, the order reflects those incurred prior to the delivery of fuel to the utility's dedicated storage facilities. The order states that all other fossil fuel-related costs should be recovered through base rates. The Commission said other fossil fuel-related costs normally recovered through base rates could be considered in the fuel clause to the extent that that those costs resulted in fuel savings to the customers, but required a case-by-case consideration of requests for approval.

Q. DO YOU BELIEVE THAT THE MODULAR COOLING TOWER COSTS ARE APPROPRIATE TO BE RECOVERED THROUGH THE FUEL CLAUSE?

A. No. The modular cooling tower costs do not qualify for recovery through the fuel clause. Witness Portuondo, on page 10 of his revised direct testimony testifies that the costs should be recovered through either the ECRC or the fuel clause. On page 7, he states that Order No. 14546 established the guidelines for fuel cost recovery. He quotes paragraph 10 of that order which states:

> Fossil fuel-related costs normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers. Recovery of such costs should be made on a case by case basis after commission approval.

Q. WHY SHOULD THE COMMISSION REFUSE TO ALLOW PEF TO COLLECT THESE COSTS THROUGH THE FUEL CLAUSE?

A. First, the modular cooling tower costs are not fossil-fuel related. These costs are well-removed from the portion of the plant where fuel consumption enters into the process, as OPC witness Hewson observes. These costs were incurred to maintain compliance with the plant permits regarding water temperature requirements that have been in effect since 1988.

Secondly, Paragraph 10 in the order was meant to encourage utilities to spend money that they might not otherwise choose to spend to save fuel costs. The example given on page 3 of the order was to allow fuel recovery of the cost of an unanticipated short-term lease of a terminal to allow a utility to receive a shipment of low cost oil. We do not acquiesce to the view that it is appropriate for a utility to for go expenditures that would lower fuel costs just because the expenditure would temporarily affect base rate earnings. However, as Mr. Hewson develops in his testimony, complying with permit terms so as to avoid having to curtail operations is a fundamental operational need and is not an example of the fuel-related type of expenditure the Commission had in mind.

Further, if you accept PEF's fuel savings argument, then by extension all costs incurred in planned or unplanned outages of any lower-fuel cost plant would qualify for the fuel clause. These types of costs are properly considered operation and/or maintenance costs and they belong in base rates. This is true even though the exact type of project may not have been anticipated when the

last base rate test year projections were made. The bottom line is that costs avoided from planned outages, de-rates or unplanned outages are operation and/or maintenance costs, not fuel costs, and properly belong in base rates. Further, it is only reasonable and prudent for the utility to operate their plants to avoid increased fuel costs.

Q. ARE THE MODULAR COOLING TOWER COSTS VOLATILE?

A. No. These costs are essentially compliance costs that do not meet the standard for recovery through the ERCR or the fuel clause and are not "volatile fuel costs" and therefore should be recovered through base rates.

Q. WOULD THE REFUSAL TO ALLOW CLAUSE RECOVERY THAT YOU RECOMMEND TREAT PEF HARSHLY?

A. No. Rather, PEF is seeking extraordinary treatment of amounts that are ineligible for clause treatment and in any event have no material bearing on its earnings. Based on information contained in the most recent surveillance report as of December 31, 2006[2], and information I took from PEF's 2006 ECRC exhibits[3], I calculated that absorbing the modular cooling tower costs in base rate earnings would cause PEF's return on equity to fall by just 9/100ths of 1% during the first, highest-cost year. (Exhibit ____ PWM-2). The impact on subsequent years would be less.

Q. DO YOU BELIEVE THAT PEF'S BASE RATES ARE SUFFICIENT

[2] PEF December 31, 2006, Surveillance Report filed with Commission staff dated February 14, 2007.
[3] Direct testimony exhibit of J. Portuondo in the ECRC Docket No. 060007-EI, filed with the Commission on August 4, 2006.

TO ABSORB THE COSTS OF THE MODULAR COOLING TOWERS?

A. Yes. Based on my analysis PEF could include all of the 2006 costs for the cooling towers in base rates and fully recover its operating costs and earn a fair rate of return on its investment. In short, PEF can and will recover these costs in base rates. On the other hand, if these costs are recovered through either the ECRC or the fuel clause, the ratepayers will receive an unwarranted, back-door rate increase.

Q WOULD YOUR VIEW OF THE PROPER FUNCTIONS OF BASE RATES AND COST RECOVERY CLAUSES CHANGE IF THE UTILITY WAS EARNING LESS THAN A FAIR RATE OF RETURN AT THE TIME IT INCURS THE COST FOR WHICH IT SEEKS RECOVERY THROUGH A CLAUSE?

A. No. If, hypothetically, the utility is earning less than the bottom of the range of its authorized rate of return, then its appropriate recourse is -- not abuse a clause -- to avail itself of the opportunity afforded it by statute to seek an adjustment in base rates. If it does so, then customers and the Commission will have an opportunity to assess the company's condition on an overall basis. Ultimately, the responsibility belongs solely with the utility's management to consider the need to seek base rate relief.

Q. DO YOU BELIEVE INCLUDING THE MODULAR COOLING TOWER COSTS IN THE FUEL CLAUSE WOULD VIOLATE THE 2005 RATE CASE SETTLEMENT APPROVED BY THE COMMISSION IN DOCKET NO. 050078-EI.

A. Yes, I believe that it would. I believe that these costs are normal capital and operating costs that are traditionally and historically included in base rates. The 2005 rate case settlement order[4] stated the following:

> ... During the term of this Stipulation and Settlement, except as otherwise provided for in this Agreement, or except for unforeseen extraordinary costs imposed by government agencies relating to safety or matters of national security, PEF will not petition for any new surcharges ... to recover costs that are of a type that traditionally and historically would be, or are presently, recovered through base rates. (Paragraph 4)

Thus it is clear to me that including these unanticipated but normal operating costs in the ERCR or fuel clause would violate the terms of PEF's rate case settlement. Even in his direct testimony, Witness Portuondo uses the language from Order No. 14546, paragraph 10, to support that these costs are normal base rate type costs. He relies on the language that states: "Fossil-fuel related costs *normally recovered through base rates*...", see Page 7, lines 18-19 (Emphasis added).

Q. WHAT ACTION DO YOU BELIEVE THAT THE COMMISSION SHOULD TAKE REGARDING THE MODULAR COOLING TOWER COSTS?

[4] In re: Petition for rate increase by Progress Energy Florida, Inc., in Docket No. 050078-EI, Order No. PSC-05-0945-S-EI, issued September 28, 2005.

A. These costs belong in base rates. PEF should be refund all amounts collected through the ECRC in 2006 and 2007 estimates, with interest. The refund should be implemented as a part of the 2007 true-up proceeding.

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060162-EI

In re: Petition of Progress Energy Florida, Inc.
to recover modular cooling tower costs.

REVISED REBUTTAL TESTIMONY OF JAVIER PORTUONDO

April 4, 2007

Q. Please state your name and business address.

A. My name is Javier J. Portuondo. My business address is Post Office Box 1551, Raleigh, North Carolina 27601.

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

A. I am employed by Progress Energy Service Company, LLC, as Director of Regulatory Planning.

Q. Have you previously submitted testimony in this docket?

A. Yes. I provided regulatory support for the Progress Energy's request for recovery of the costs of the modular cooling tower project.

Q. Have any of your responsibilities or duties changed since you last submitted testimony in this docket.

A. No.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to several assertions made by witnesses Patricia Merchant and Thomas Hewson on behalf of the Office of Public Counsel (OPC). In particular, I will respond to the following issues raised by Ms. Merchant and Mr. Hewson:

- Whether the Modular Cooling Tower Project meets the second criterion for recovery under the Environmental Cost Recovery Clause (ECRC) (i.e., whether the effect of the environmental requirement that led to the project was triggered after the company's last test year upon which rates are based);
- Whether the Modular Cooling Tower Project meets the third criterion for ECRC recovery (i.e., whether the costs for the project are recovered in Progress Energy Florida's (PEF's) base rates); and
- Whether the Modular Cooling Tower Project meets the criteria for recovery under the Fuel and Purchase Power Recovery Clause (Fuel Clause) under Commission Order No. 14546.

Q. Are you sponsoring any Exhibits with your rebuttal testimony?

A. Yes. I am sponsoring Exhibit No. __ (JP-3), which is a copy of Rule 62-761, Florida Administrative Code, effective July 13, 1998, which was submitted on behalf of PEF in support of its request for ECRC recovery of the costs of PEF's Aboveground Storage Tank Program. That request was approved in PSC Order No.03-1348-FOF-EI, at p. 10.

Q. Do you disagree with Ms. Merchant's statement that "[i]f a cost does not legitimately meet the definition of costs that qualify for a recovery clause, it should be borne through base rates."

A. I do not disagree with this statement. However, it begs the question of whether a cost meets the criteria for recovery under a cost recovery clause. Ms. Merchant goes to great lengths to explain her view of ratemaking theory and when a utility is earning fair rate of return. However, that discussion is largely, if not entirely, irrelevant to the criteria for recovery under the ECRC and the Fuel Clause. In its initial order implementing the ECRC, the Commission specifically rejected OPC's argument that ECRC recovery should be subject to an earnings test under which recovery would be denied if a utility is earning within its allowed return on equity range. See Order No. PSC-94-0044-FOF-EI, at pp. 3-4. Likewise, Order No. 14546 did not establish an earnings test for determining whether "other" non-specified fuel-related costs are recoverable under the Fuel Clause. However, in both orders, the Commission ensured against double-recovery by establishing a criterion that the costs at issue were not anticipated when the utility's base rates were established.

Q. Are you familiar with the eligibility criteria for recovery through the ECRC?

A. Yes. The ECRC, Section 366.8255, Florida Statutes, authorizes the Commission to review and approve recovery of environmental compliance

costs prudently incurred by electric utilities. In Order No. PSC-94-0044-FOF-EI, the Commission established the policy that recovery of costs associated with environmental compliance activities should be recoverable through ECRC if:

1) such costs were prudently incurred after April 13, 1993;

2) the activity is legally required to comply with a governmentally imposed environmental regulation that was enacted or became effective, or whose effect was triggered after the company's last test year upon which rates are based; and

3) such costs are not recovered through some other cost recovery mechanism or through base rates.

Q. On pages 4 through 7 of his testimony, Mr. Hewson asserts that the Modular Cooling Tower Project does not meet the second ECRC eligibility criterion because the NPDES permit limitation was "in place" prior to the test year upon which PEF's base rates were based. Do you agree with this assertion?

A. No. As I previously quoted, the relevant language from Order No. PSC-94-0044-FOF-EI states that "the activity must be legally required to comply with a governmentally imposed environmental regulation that was enacted or became effective, *or whose effect was triggered* after the company's last test year upon which rates are based." (emphasis added). Mr. Hewson ignores the italicized language which focuses on when the effect of the environmental

requirement was triggered, rather than just the date it was put in place as Mr. Hewson suggests. The Modular Cooling Tower Project satisfies this criterion because the need for the additional cooling water capacity to comply with the NPDES permit limitation was triggered by the unusually high inlet water temperatures during the summer of 2005, which were not fully analyzed until after PEF's MFRs were submitted and its base rates were established/approved in Docket No. 050078. Indeed, the decision to implement the project was not made until February, 2006.

As Commission Staff recognized in its recommendation that the Commission approve PEF's request for ECRC recovery, the Crystal River industrial wastewater permit does not mandate a particular method to meet the thermal limitation. However, the permit legally requires PEF to remain in compliance. Due to the increased cooling water intake temperatures, PEF has two options to maintain compliance: de-rate, and thus decrease the availability of its baseload capacity; or add additional cooling capacity. The Modular Cooling Tower Project provides additional cooling capacity and restores plant capacity to its baseline level and thereby avoids higher alternate fuel or purchase power costs being borne by ratepayers. Although PEF has the option to de-rate its plants to comply with the permit, the Modular Cooling Tower Project is the most cost-effective and beneficial compliance option for PEF's ratepayers.

Q. Has the Commission previously approved ECRC recovery for activities necessary to comply with environmental requirements that were in place prior to the test year upon which PEF's base rates were based?

A. Yes. In Order No. PSC-03-1348-FOF-EI, at p. 10, the Commission approved PEF's request to recover activities necessary to comply with requirements established in 1998 amendments to the Florida Department of Environmental Protection's (FDEP's) above ground storage tank rule. Exhibit No. __ (JP-3) is a copy of FDEP Rule 62-62-761, Florida Administrative Code, effective July 13, 1998, which was submitted in support of PEF's request. As shown in Table AST on page 5 of the exhibit, although the rule amendments were in place since 1998 (before the test year upon which PEF's then-current rates were based), PEF was not required to undertake any compliance activities to meet with the specific requirements for the storage tanks at issue (keynotes W and U) until 2005 and 2010. In other words, the full effect of the pre-existing environmental requirement was not triggered until after PEF's last base rate proceeding. The same logic applies to the Modular Cooling Tower Project because the full effect of the NPDES permit limit was not triggered until after PEF's base rates were established. Prior to that time, there had been no determination that additional cooling water capacity was needed to comply with the NPDES permit limitation.

Mr. Hewson discusses issues like improved station performance and improved unit performance and availability as though these were operational issues that PEF was facing in the operation of Crystal River. This could not be further from the truth. The operational efficiency of the units, but for this climatic issue manifesting itself in the higher than normal cooling water intake temperatures, would not have caused the need for increased cooling water capacity. Mr. Hewson is confusing operational or maintenance activities that would facilitate ongoing, efficient plant operation with a climatic change – something beyond the control of the Company and unanticipated when the NPDES permit limitations were established – which triggered the need to implement incremental compliance measures.

Q. Do you agree with Mr. Hewson's suggestion, at pages 7 and 8 of his testimony, that projects must have a direct effect on delivered fossil fuel prices to be eligible for Fuel Clause recovery under Order No. 14546?

A. No, Order No. 14546 imposes no such limitation. To the contrary, the Commission expressly sought to establish a "flexible" policy to allow for recovery through the fuel clause of expenses that were not anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers. See Order No. 14546 at p. 3, 85 FPSC 7:69. In applying this "flexible" policy, the Commission has not sought to limit the types of costs incurred, but rather to ensure a linkage to the types of costs avoided. An excellent example of this is the Commission's decision

with regard to FPL's request for recovery of costs associated with the uprate at Turkey point in Order No. PSC-96-1172-FOF-EI issued in Docket No. 96001-EI, at p.9. The costs incurred were of a capital nature and associated with nuclear production, not fossil fuel. Because the project would allow FPL to lower total overall fuel costs by more than the expected cost of the project, the Commission found that the project fell under the scope of Order No. 14546. This Commission precedent indicates that any costs that result in overall fuel savings can be considered fossil fuel-related costs even though they do not have a direct effect on delivered fossil fuel prices.

Q. Do you agree with Mr. Hewson's suggestion that, if the modular cooling tower costs are eligible for Fuel Clause recovery under Order No. 14546, "most operational and maintenance projects" also would qualify?

A. No. Order No. 14546 only allows recovery of costs "which were not recognized or anticipated in the cost levels used to determine current base rates[.]" Most operation and maintenance costs (including costs incurred in planned or unplanned outages) are recognized and anticipated when base rates are determined and in fact are activities meant to repair or replace existing equipment due to natural wear and tear. By contrast, as I previously discussed, the costs of the Modular Cooling Tower Project were not recognized or anticipated in the cost levels used to determine PEF's current base rates. In addition, most if not all of those operation and maintenance

projects would not meet the Commission test that fuel savings resulting from the project must exceed the cost incurred to achieve those savings.

Whether other, hypothetical activities may be eligible for cost recovery under the ECRC or Fuel Clause depends upon the specific circumstances involved. For example, the Commission previously has approved recovery of capital expenditures for fuel switch projects of the type cited by Mr. Hewson where, under the criteria set forth in Order No. 14546, they would result in fuel cost savings. See, Order Nos. PSC-95-0450-FOF-EI (modifications enabling FPL units to burn a more economic grade of residual fuel oil); PSC-98-0412-FOF-EI (conversion of Suwannee Unit 3 to burn natural gas); and PSC-97-0359-FOF-EI (conversion of FPC units to burn natural gas).

Q. Do you agree with Ms. Merchant's assertion that the costs of the Modular Cooling Tower Project are included in PEF's base rates?

A. No. As I stated in my direct testimony, the Modular Cooling Tower Project was not anticipated when PEF's current base rates were established/approved in Docket No. 050078-EI. The Company's evaluation of the project was prompted by unusually high inlet water temperatures and associated de-rates during the summer of 2005. The analysis leading to a determination that additional cooling was needed occurred throughout the fourth quarter of 2005 and the decision to implement the Project was not made until February 2006. Thus, the costs of the project were not anticipated

when the Company submitted its rate case MFRs in April 2005 and are not included in the Company's base rates.

Contrary to Ms. Merchant's suggestion, Exhibit Nos. __ (JP-1) and (JP-2) confirm that the modular cooling tower costs were not anticipated when PEF's current base rates were established/approved. As Ms. Merchant recognizes, line 12 of Exhibit No. __ (JP-1) compares the amounts budgeted to actual expenditures for rental expenses from 2000 through 2006. The balance for both years is zero, demonstrating that PEF had not incurred cooling tower rental costs in 2000 and did not anticipate them in 2006.

Exhibit No. __ (JP-2) shows the monthly in-plant balances for the test year 2006. Prior to 2006 when the Modular Cooling Tower Project was placed into service, PEF had never incurred any capital costs for modular cooling towers. Thus, if the project had been anticipated when the MFRs were submitted, the increase in plant-balance for FERC account 314 reflected in Exhibit No. __ (JP-2) would have had to be large enough to encompass the costs of the project. As stated in my direct testimony, however, the schedule does not show any increases that would accommodate plant additions for the modular cooling towers.

Q. Do you agree with Ms. Merchant's assertion, at pages 17 and 18 of her testimony, that recovery of the modular cooling tower costs would violate the 2005 rate case settlement approved in Docket No. 050078-EI?

A. No. In relevant part, the provision of the settlement referenced by Ms. Merchant states that "PEF will not petition for any *new surcharges* . . . to recover costs that are of a type traditionally and historically would be, or are presently, recovered in base rates." (emphasis added). This provision precludes PEF from petitioning for "*new* surcharges." It does not prevent PEF from recovering newly incurred costs under *existing* cost recovery clauses. Ms. Merchant also points to the "...*traditionally recovered in base rates*..." in Order No. 14546, but does not acknowledge that there are types of costs that have been traditionally and historically recovered through the Fuel Clause as well as ECRC when they are found to meet the respective tests for eligibility. These costs are of a nature that they pass the criteria for recoverability under either clause as discussed in more detail in my pre-filed direct testimony and above and as such have traditionally and historically been recovered through these clauses, not through base rates.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

MS. BROWN: We have also prepared, as I mentioned, a comprehensive exhibit list that includes staff's stipulated composite exhibit and all exhibits prefiled with the parties' testimony. We ask that the exhibit list itself be marked as Exhibit 1 and all other exhibits be marked as identified on the list.

CHAIRMAN EDGAR: Okay. Seeing no objection -- no objection. The comprehensive exhibit list will be marked Exhibit 1 and the composite list with all of the, the, all the rest of the exhibits will be so marked.

MS. BROWN: We ask that the marked exhibits all be admitted into the record.

CHAIRMAN EDGAR: And the exhibits as marked will be entered into the record.

(Exhibits 1 through 11 marked for identification and admitted into the record.)

MS. BROWN: And I think, Madam Chairman, unless the parties have anything more, we can conclude the hearing.

Let me point out that the transcript of the hearing will be due May 7th, the briefs will be due May 31st, staff recommendation June 27th for an Agenda July 10th.

CHAIRMAN EDGAR: To the parties, any other matters or questions or comments?

MR. McGLOTHLIN: I have none.

CHAIRMAN EDGAR: None? Mr. Perko?

MR. PERKO: I have none.

CHAIRMAN EDGAR: None. Commissioners? No.

Okay. Well, then as always, thank you to our staff, thank you to the parties for the cooperation in getting us to this point so that the issues could be laid out for consideration. And, Ms. Brown, thank you, and we are adjourned.

(Proceeding adjourned at 10:10 a.m.)

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

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

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

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

DATED THIS 2nd day of May, 2007.

Linda Boles

LINDA BOLES, RPR, CRR
FPSC Official Commission Reporter
(850) 413-6734

Comprehensive Exhibit List for Entry into Hearing Record				
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Exhibit Description**	**Entered**
STAFF				
1		Comprehensive Exhibit List	Comprehensive Exhibit List	
2		Staff Composite Exhibit - Stipulated	1. PEF's Response to Staff's First Set of Interrogatories (Nos. 1-8) – *[Bates Nos. 1-8]* 2. PEF's Response to Staff's Second Set of Interrogatories (Nos. 9-10) - *[Bates Nos. 9-11]* 3. PEF's Response to Staff's First Request for Production of Documents (Nos. 1-2) - *[Bates Nos. 12-13]* 4. Document No. 03215-06 – Redacted version – Fuel and Purchased Power Forecasts - *[Bates Nos. 14-16]* **Confidential** 5. Document No. 03214-06 – Fuel and Purchased Power Forecasts	
Testimony Exhibit List				
PEF - DIRECT				
3	Javier Portuondo	JP-1	Schedule C-6 of MFRs filed in Docket No. 050078-EI	

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI **Exhibit No.** 1
Company/ FPSC Staff
Witness: Comprehensive Exhibit List
Date: 05/01/07

Comprehensive Exhibit List for Entry into Hearing Record				
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Exhibit Description**	**Entered**
4	Javier Portuondo	JP-2	Schedule B-8 of MFRs filed in Docket No. 050078-EI	
5	Thomas Lawery	TL-1	Comparison of Cooling Water Intake Temperatures and POD derates	
6	Thomas Lawery	TL-2	Industrial Wastewater Facility Permit No. FL0000159	
7	Thomas Lawery	TL-3	Cooling Water Inlet Temperatures and unit loads from 5/1/06 through 7/31/06	
OPC				
8	John B. Stamberg	TAH-1	Resume of Thomas A. Hewson Jr.	
9	Patricia W. Merchant	PWM-1	Resume of Patricia W. Merchant	
10	Patricia W. Merchant	PWM-2	PEF Earnings Analysis Adjusted for Inclusion of Modular Cooling Towers in Base Rates	
PEF – REBUTTAL				
11	Javier Portuondo	JP-3	~~Direct Testimony of Patricia Q. West filed in Docket No. 030007-EI on Aug. 8, 2003~~ Florida Department of Environmental Protection Rule 62-761 (1998)	

EXHIBIT NO. _____

DOCKET NO: 060162-EI

WITNESS: VARIOUS

PARTY: PROGRESS ENERGY FLORIDA, INC.

DESCRIPTION: STAFF'S COMPOSITE EXHIBIT – 2

DOCUMENTS:

Interrogatories

1. PEF's Response to Staff's First Set of Interrogatories (Nos. 1-8) – *[Bates Nos. 1-8]*

2. PEF's Response to Staff's Second Set of Interrogatories (Nos. 9-10) - *[Bates Nos. 9-11]*

Production of Documents

3. PEF's Response to Staff's First Request for Production of Documents (Nos. 1-2) - *[Bates Nos. 12-13]*

4. Document No. 03215-06 – Redacted version – Fuel and Purchased Power Forecasts - *[Bates Nos. 14-16]*

Confidential

5. Document No. 03214-06 – Fuel and Purchased Power Forecasts

PROFFERED BY: STAFF

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI Exhibit No. 2
Company/ FPSC Staff
Witness: Staff Composite Exhibit-Stipulated
Date: 05/01/07

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition by Progress Energy Florida, Inc. for approval to recover modular cooling tower costs through environmental cost recovery clause.	DOCKET NO. 060162-EI DATED: MARCH 19, 2007

PROGRESS ENERGY FLORIDA'S RESPONSES & OBJECTIONS TO STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-8)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's First Set of Interrogatories (Nos. 1-8):

RESPONSES & OBJECTIONS

1. Please refer to page 8 of the testimony of Javier Portuondo, lines 12 through 22 and continuing on to page 9, lines 1 through 20. In estimating net fuel savings, witness Portuondo matches the highest hourly de-rate to the hour with the highest projected load.

(a) Does this method maximize the amount of net fuel savings? Please explain.

RESPONSE: No. This method was chosen because it was judged to be most representative of the size and timing of the de-rates. POD de-rates are driven by cooling water intake temperatures and occur during periods of high system loads. The method in the referenced testimony of Javier Portoundo describes how a population of hourly derate values (derived by averaging historical years by month) were assigned to specific hours of the forecast period in an appropriate fashion. Hourly derates were allocated to the respective hours where they are most likely to occur and therefore represent the condition as accurately as possible.

(b) What would estimated net fuel savings be if the calculation was done on an average basis, i.e., matching average hourly de-rate to average projected load?

RESPONSE: Such an analysis was not done. As noted above, the population of hourly de-rate values already represent an average, by month, of the three years of available historical data. Due to the correlation between system load and the size and timing of individual hourly de-rates, the calculation did match historically averaged hourly de-rates to the system loads that they would be most likely to coincide with.

(c) What fuel and purchased power price forecasts were assumed for estimating net fuel savings?

RESPONSE: This information is already available to the Commission Staff in this docket. On April 10, 2006, Progress Energy filed with the Commission a redacted copy of the fuel and purchase power price forecasts used for the estimates in Javier Portuondo's testimony (PSC Document No. 03215-06). On the same date, a non-redacted, confidential copy of the forecasts was provided to the Commission Clerk on April 10, 2006 (PSC Document No. 03214-06), with a request for confidential classification, which was granted on July 7, 2006. See Order No. PSC-06-0591-CFO-EI.

2. Please refer to page 8, lines 1 through 10, of the testimony of Javier Portuondo. For each order on lines 3 through 5, please cite and describe the specific example of the Commission approving recovery of unanticipated costs through the fuel clause that resulted in significant savings to the utility's ratepayers. Also, describe the expenditures and the savings.

RESPONSE:

- PSC-95-0450-FOF-EI: Order granting the Florida Power and Light (FPL) request for recovery of $2.8 million in costs associated with the modifications made to Cape Canaveral Unit #1 & 2, Fort Meyers Unit #2, Riviera Unit #3 & 4, and Sanford Unit #3, 4, & 5 enabling the units to burn a more economic grade of residual fuel oil. FPL requested recovery of the costs through the Fuel and Purchased Power Cost Recovery Clause because the modifications were expected to generate significant savings due to lower fuel prices. The Commission allowed these costs to be recovered through the fuel clause because the expenditures would result in significant savings to the utility's ratepayers. FPL estimated the project would cost approximately $2.8 million and the ratepayers would save approximately $80 million between 1995 and 1999.

- PSC-94-1106-FOF-EI: Order granting petition for cost-recovery of Orimulsion Conversion project costs through the Fuel and Purchased Power Cost Recovery Clause. FPL requested permission to recover the costs of converting two units to burn Orimulsion. To the extent fuel savings exceeded costs, FPL was allowed to recognize half of these savings as additional accelerated depreciation. The cost of the project was projected to result in $2.6 billion in fuel savings over 20 years at an expected cost of approximately $72 million.

- PSC-98-0412-FOF-EI: Order granting the Florida Power Corporation request for approval to recover the cost of converting Suwannee Unit 3 to burn natural gas through the Fuel and Purchased Power Cost Recovery Clause. The conversion was estimated to save the ratepayers approximately $3.25 million over the following five years at a cost of approximately $2.45 million. The Commission approved recovery through the fuel clause of these costs because they were not previously addressed in determining base rates and would result in fuel savings to ratepayers.

- PSC-97-0359-FOF-EI: Order granting the Florida Power Corporation request for approval to recover the cost of converting Debary Unit 7, Bartow Units 3 & 4, and Suwannee Unit 1 to burn natural gas through the Fuel and Purchased Power Cost Recovery Clause. The conversion was estimated to save the ratepayers more than $22 million over the following five years at a cost of approximately $7.5 million. The Commission approved recovery through the fuel clause of these costs because they were not previously addressed in determining base rates and would result in fuel savings to ratepayers. The Commission specifically sited Order #14546 in approving these costs for recovery through the fuel clause.

- PSC-97-0359-FOF-EI: Order granting the FPL request for recovery of depreciation expense and return on investment for rail cars purchased to deliver coal to the Scherer Plant. The Commission cited Order No. 14546 in approving these costs for recovery through the Fuel and Purchased Power Cost Recovery Clause due to the fact that they were not previously considered in a rate case. The Commission further stated that when economically beneficial to the utility's ratepayers, the cost of purchasing or leasing railcars is considered to be a fuel-related expense and should be recovered through the fuel clause. FPL also requested approval to recover modifications needed at certain sites to allow for the use of "low gravity" fuel oil. These modifications were estimated to save the ratepayer approximately $19 million over three years at a cost of approximately $2 million. The Commission again cited Order No. 14546 in approving these costs for recovery through the fuel clause.

- PSC-96-1172-FOF-EI: FPL requested recovery through the Fuel and Purchased Power Cost Recovery Clause of the costs associated with the thermal power uprate of Turkey Point Units 3 & 4. The project was estimated to save the ratepayer approximately $198 million through year 2011 at a cost of approximately $10 million. It is notable that the Commission approved recovery of these costs through the Fuel Clause citing Order No. 14546 not because the costs of the project had anything to do with fossil fuel generation, but rather because they allowed the utility to use less fossil fuel due to increased nuclear generation availability. The Commission specifically stated that because the fuel savings are expected to outweigh the costs, FPL should be able to recover these costs through the Fuel Clause.

3. For purposes of preparing and filing a need determination, please list each type of cost that is non-fuel.

OBJECTIONS: PEF objections to this interrogatory for the grounds stated in its filing dated February 26, 2007. It is PEF's understanding that Staff has withdrawn this interrogatory.

4. For purposes of preparing and filing a need determination, please list each type of cost that is an environmental compliance cost.

OBJECTIONS: PEF objections to this interrogatory for the grounds stated in its filing dated February 26, 2007. It is PEF's understanding that Staff has withdrawn this interrogatory.

5. Is the thermal discharge temperature criteria at the Crystal River Power Plant established for the purpose of avoiding higher fuel costs? In your response please state the scope of jurisdiction of the authority which set and enforces the thermal discharge temperature criteria at the Crystal River Power Plant.

RESPONSE: No. As authorized by the Clean Water Act, the NPDES permit program controls water pollution by regulating point sources that discharge into waters of the United States. In Florida, the federal NPDES program is administered by authorized delegation to the FDEP. The thermal component of the discharge from the once-through cooling system at Crystal River is subject to water quality standards. These standards require that thermal discharges shall not increase the temperature of the receiving body of water so as to cause substantial damage or harm to the aquatic life or vegetation therein or interfere with beneficial uses assigned to that water body. The NPDES permit is renewed every 5 years with thermal limits set by FDEP to ensure compliance with state and federal criteria.

6. Please identify all portions of the Company's testimony and exhibits showing that the high cost of non-coal based power/energy, not the thermal discharge temperature criteria, caused the Company to look for alternatives to lessen its incurred cost of fuel and energy. Include in your response all set points and triggers that the Company used to determine when it began to seek lower fuel cost alternatives.

RESPONSE: There is an inextricable link between the need to operate within the thermal permit limit and the increased replacement power costs. For this reason, PEF cannot link any portion of the testimony solely to one or the other. This project can be justified on either basis: the need to comply with the thermal permit limit, or the opportunity to save the customer fuel costs. The thermal permit limit forced PEF to derate Units 1 & 2 during the summer months due primarily to increased intake canal temperatures beyond PEF's control. These de-rates are what give rise to the opportunity to reap fuel savings. The company has continuously monitored the number of de-rates necessary to comply with the 96.5 F thermal discharge limit (3 hour rolling). It was only after the 2005 summer that PEF determined that it would be prudent to undertake this project because it was expected the cost would be more than offset by fuel savings to the customer. This project therefore has the critical link to fossil fuel costs required to be recoverable under the fuel clause and Order No. 14546. Alternatively, the change in environmental conditions has triggered the need for additional cooling in order to operate at full power during the summer months. Order No. PSC-94-0044-FOF-EI established the policy that

recovery of such costs should be recoverable through ECRC if such costs are prudently incurred after April 13, 1993, the activity is legally required to comply with a governmentally imposed environmental regulation that was enacted or became effective, or whose effect was triggered after the company's last year upon which rates are based, and such costs are not recovered through some other cost recovery mechanism or through base rates. The modular cooling tower project clearly meets the test for costs that can be recovered through the ECRC.

If there was no limit on the discharge temperature, PEF would not have had to derate the units and there would be no savings opportunity. Alternatively, if derating the plants was not costing ratepayers anything (i.e. higher fuel costs) PEF would likely not be incurring expenses to avoid these derates. As such, it would be improper to say that certain portions of PEF's testimony in this docket are solely due to fuel savings and have no link to the discharge temperature limit.

7. Please identify all formally established ongoing Company programs specifically targeted at mitigating and/or lowering incurred fuel/energy costs. List all documents memorializing the scope and objectives of each such programs. Include in your response all set points, triggers, and other criteria that the Company uses to determine when additional measures are necessary to mitigate and/or lower incurred fuel/energy costs.

RESPONSE: PEF considers the obligation to provide reliable power to our customers at as low a cost as possible to be one of our fundamental goals. As such, PEF is always trying to provide power at the lowest total cost. While there is no formal memorialized program specifically targeted at mitigating and/or lowering incurred fuel/energy costs, PEF continuously looks for opportunities to lower or stabilize the cost of fuel.

8. Please provide a list identifying all types of costs that the Company believes to be fossil fuel-related costs and show the approximate percentage of base rates and/or rate base associated with each type of cost, the FERC account number associated with each type of cost, and the FERC account definition associated with each type of cost.

RESPONSE: Order No. 14546 lists specific types of fossil fuel-related costs that are not included in base rates, but are recoverable under the fuel and purchase power cost recovery clause. In addition, Order No. 14546 established a "flexible" policy to allow for recovery through the fuel clause of other expenses that were not anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers. In applying this "flexible" policy, the Commission has not sought to limit the types of costs incurred, but rather to ensure a linkage to the types of costs avoided. An excellent example of this is the Commission's decision with regard to FPL's request for recovery of costs associated with the uprate at Turkey point in Docket No. 960001-EI. The costs incurred were of a capital nature and associated with nuclear production, not fossil fuel. Because the project would allow FPL to lower total overall fuel costs by more than the expected cost of the project, the Commission found that the project fell under the scope of Order 14546. This Commission

precedent indicates that any costs that result in savings associated with fossil fuel can be considered fossil fuel-related costs.

DATED this 19th day of March, 2007.

HOPPING GREEN & SAMS, P.A.

By: Virginia C. Dailey

Gary V. Perko
Florida Bar No. 855898
Carolyn S. Raepple
Florida Bar No. 329142
Virginia C. Dailey
Florida Bar No. 419168
Post Office Box 6526
Tallahassee, FL 32314
garyp@hgslaw.com
carolynr@hgslaw.com
virginiad@hgslaw.com
Tel.: 850-222-7500
Fax: 850-224-8551

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

STATE OF NORTH CAROLINA)

COUNTY OF WAKE)

I hereby certify that on this 19th day of March, 2007, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Javier Portuondo, who is personally known to me, and he/she acknowledged before me that he/she provided the answers to interrogatory number(s) 1-4, and 6-8 from COMMISSION STAFF'S FIRST SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 1 – 8) in Docket No. 060162-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 19th day of March, 2007.

Javier Portuondo
Director, Regulatory Planning

Notary Public
State of North Carolina, at Large

My Commission Expires:

1/22/2011

AFFIDAVIT

STATE OF FLORIDA)

COUNTY OF Orange

I hereby certify that on this 19th day of March, 2007, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Thomas Lawery, who is personally known to me, and he/she acknowledged before me that he/she provided the answers to interrogatory number(s) 5 from COMMISSION STAFF'S FIRST SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 1 – 8) in Docket No. 060162-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 19th day of March, 2007.

Thomas Lawery
Manager, Regional Engineering – South

SUZANNE H. MILLER
MY COMMISSION # DD 411455
EXPIRES: March 27, 2009
Bonded Thru Notary Public Underwriters

Notary Public
State of Florida, at Large

My Commission Expires:
3/27/09

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition by Progress Energy Florida, Inc. for approval to recover modular cooling tower costs through environmental cost recovery clause.	DOCKET NO. 060162-EI DATED: APRIL 16, 2007

PROGRESS ENERGY FLORIDA'S RESPONSES TO STAFF'S SECOND SET OF INTERROGATORIES (NOS. 9-10)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Second Set of Interrogatories (Nos. 9-10):

RESPONSES

9. **According to the direct testimony of Mr. Thomas Lawery, page 5, lines 21-23 and page 6, lines 1-3, PEF explored other alternatives to the modular cooling towers at the Crystal River plant. Did PEF explore the alternative of installing diversion curtains to increase the length of the course water would take through the discharge canals, thereby increasing the time for the water to cool in the discharge canals?**

Response: PEF reviewed the potential feasibility of using diversion curtains but determined that diversion curtains are not technically feasible for this application. The discharge canal is narrow (less than 100 yards across) and surrounded by either power plant systems in use or wetlands. In order to make diversion curtains effective, the discharge canal would need to be extended in length by a significant distance (miles). This would require acquisition of significant, additional real estate to provide the cooling needed and this was not possible with the geography of our discharge canal and surrounding areas.

9(a) What are the costs and benefits associated with diversion curtains? Provide all assumptions.

Response: As described in the response to 9 above, the use of diversion curtains is not a technically feasible solution for this application. As such, cost and benefit analysis was not performed.

9(b) Would use of diversion curtains be a feasible alternative to the modular cooling towers? If not, why not?

Response: No. As noted in response to Interrogatory 9 above, PEF reviewed the feasibility of installing diversion curtains and determined this alternative to be infeasible.

9(c) Would use of diversion curtains be a cost-effective option to use in conjunction with the modular cooling towers? If not, why not?

Response: As discussed in the response to 9 above, diversion curtains would be of little benefit due to the narrow discharge canal.

10. Are you aware of any instances where diversion curtains have been installed in discharge canals to decrease discharge water temperatures? Please explain.

Response: Yes, diversion curtains are used under circumstances different than the Crystal River Energy Complex. For example, PEF uses diversion curtains at its Hines Energy Complex to avoid "short circuiting" of the cooling pond at that site. PEF understands that FPL's Turkey Point Nuclear Plant uses cooling canals with curtains. The Turkey Point site has 168 miles of canals to cool their water. Both Hines and Turkey Point are closed cooling water systems which facilitate the use of diversion curtains. By contrast, Crystal River plants are once through cooling into the Gulf of Mexico which does not facilitate their use.

DATED this 16th day of April, 2007.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
Post Office Box 6526
Tallahassee, FL 32314
garyp@hgslaw.com
Tel.: 850-222-7500; Fax: 850-224-8551

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

STATE OF FLORIDA)

COUNTY OF PINELLAS)

I hereby certify that on this 16th day of April, 2007, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Thomas Lawery, who is personally known to me, and he/she acknowledged before me that he/she provided the answers to interrogatory number(s) 9 and 10 from COMMISSION STAFF'S SECOND SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 9-10) in Docket No. 060162-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 16th day of April, 2007.

Thomas Lawery
Manger, Regional Engineering - South

SUZANNE H. MILLER
MY COMMISSION # DD 411455
EXPIRES: March 27, 2009
Bonded Thru Notary Public Underwriters

Notary Public
State of Florida, at Large

My Commission Expires:
3/27/09

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition by Progress Energy Florida, Inc. for approval to recover modular cooling tower costs through environmental cost recovery clause.	DOCKET NO. 060162-EI DATED: MARCH 19, 2007

PROGRESS ENERGY FLORIDA'S RESPONSE TO
STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS (NOS. 1-2)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, and Rule 1.350, Florida Rules of Civil Procedure, hereby serves its response to Staff's First Request for Production of Documents (Nos. 1-2).

RESPONSE

1. **Please refer to page 8 of the testimony of Javier Portuondo, lines 12 through 22 and continuing on to page 9, lines 1 through 20. Please provide complete copies of the fuel and purchase power price forecasts used for the estimate of approximately $45 million in net fuel savings.**

RESPONSE: This information is already available to the Commission Staff in this docket. On April 10, 2006, Progress Energy filed with the Commission a redacted copy of the fuel and purchase power price forecasts used for the estimates in Javier Portuondo's testimony (PSC Document No. 03215-06). On the same date, a non-redacted, confidential copy of the forecasts was provided to the Commission Clerk on April 10, 2006 (PSC Document No. 03214-06), with a request for confidential classification, which was granted on July 7, 2006. See Order No. PSC-06-0591-CFO-EI.

2. **Please refer to page 8, lines 1 through 10, of the testimony of Javier Portuondo. For each order on lines 3 through 5, please provide copies of the testimony and company petitions that describe the projects alluded to.**

RESPONSE: Non-privileged responsive documents within PEF's possession will be made available for inspection at the offices of Hopping Green & Sams, P.A., 123 S. Calhoun Street, Tallahassee, FL 32301, at a mutually agreed upon time and date, with the understanding that PEF will have the opportunity to obtain protection of confidential information in any such documents Commission Staff may desire to copy by appropriate filing with the Commission.

Respectfully submitted this 19th day of March, 2007.

HOPPING GREEN & SAMS, P.A.

Virginia C. Dailey

Gary V. Perko
Florida Bar No. 855898
Carolyn S. Raepple
Florida Bar No. 329142
Virginia C. Dailey
Florida Bar No. 419168
Post Office Box 6526
Tallahassee, FL 32314
garyp@hgslaw.com
carolynr@hgslaw.com
virginiad@hgslaw.com
Tel.: 850-425-2359; Fax: 850-224-8551

R. Alexander Glenn
Florida Bar No. 0097896
Deputy General Counsel
Progress Energy Service Company, L.L.C.
100 Central Avenue, Suite 1D
St. Petersburg, FL 33701-3324
alex.glenn@pgnmail.com

Attorneys for PROGRESS ENERGY FLORIDA

Fuel and Purchased Power Costs - Crystal River De-rate Study

REDACTED

060162-EI

Annual Costs

		2006	2007	2008	2009	2010	Line
Annual Averages:							
Coal $/MMBtu	$	2.99	[redacted]				1
Gas $/MMBtu (excludes pipeline fixed cost)	$	8.89					2
#6 Oil $/MMBtu	$	7.55					3
#2 Oil $/MMBtu	$	17.79					4
Annual Purchases		2006	2007	2008	2009	2010	
Energy MWh		5,912,100	[redacted]				5
Energy Cost $/MWh	$	39.83					6
Annual Cogeneration Purchases		2006	2007	2008	2009	2010	
Energy MWh		4,611,100	[redacted]				7
Energy Cost $/MWh	$	32.79					8

Monthly Fuel Costs

Monthly Fuel Cost Summary	Coal $/MMBtu	Gas $/MMBtu (excludes pipeline fixed cost)	#6 Oil $/MMBtu	#2 Oil $/MMBtu	Line
Jan-06	$ 2.99	$ 9.24	$ 7.73	$ 18.45	9
Feb-06	$ 2.99	$ 10.44	$ 7.69	$ 18.55	10
Mar-06	$ 2.98	$ 10.31	$ 8.12	$ 18.51	11
Apr-06	$ 2.98	$ 9.26	$ 5.83	$ 17.54	12
May-06	$ 2.99	$ 7.92	$ 6.33	$ 17.26	13
Jun-06	$ 2.98	$ 8.09	$ 6.70	$ 17.07	14
Jul-06	$ 2.99	$ 8.37	$ 7.54	$ 17.12	15
Aug-06	$ 2.99	$ 8.47	$ 7.58	$ 17.23	16
Sep-06	$ 2.98	$ 8.04	$ 7.07	$ 17.41	17
Oct-06	$ 2.99	$ 7.71	$ 7.85	$ 17.50	18
Nov-06	$ 3.03	$ 10.26	$ 9.02	$ 18.32	19
Dec-06	$ 3.02	$ 8.52	$ 9.15	$ 18.50	20
Jan-07	[redacted]				21
Feb-07					22
Mar-07					23
Apr-07					24
May-07					25
Jun-07					26
Jul-07					27
Aug-07					28
Sep-07					29
Oct-07					30
Nov-07					31
Dec-07					32
Jan-08					33
Feb-08					34
Mar-08					35
Apr-08					36
May-08					37
Jun-08					38
Jul-08					39
Aug-08					40
Sep-08					41
Oct-08					42
Nov-08					43
Dec-08					44
Jan-09					45
Feb-09					46
Mar-09					47
Apr-09					48
May-09					49
Jun-09					50
Jul-09					51
Aug-09					52
Sep-09					53
Oct-09					54
Nov-09					55
Dec-09					56
Jan-10					57
Feb-10					58
Mar-10					59
Apr-10					60
May-10					61
Jun-10					62
Jul-10					63
Aug-10					64
Sep-10					65
Oct-10					66
Nov-10					67
Dec-10					68

Assumptions

1 2006 - 2007 fuel and purchase power prices based on Nov 2005 Fuel & Operations Forecast (short-term model).
2008 - 2010 fuel and purchase power prices based on the Nov 2005 Generation & Fuel Forecast (long-term model).
Fuel prices shown represent average delivered fuel prices

2 Gas price $/MMBtu exclude pipeline fixed costs.

3 Purchased Power contracts include the following contracts by year

Year	Contract	Max MW
2006	CP&Lime	133
	Southern UPS	412
	Summer 06 Purchase	100
	TECO	70
	Winter 06 Purchase	500
2007	CP&Lime	133
	Shady Hills	520
	Southern UPS	412
	Summer 07 Purchase	100
	TECO	70
	Winter 06 Purchase	500
2008	CP&Lime	133
	Shady Hills	478
	Southern UPS	414
	TECO	70
	Winter 200 Purchase	200
2009	CP&Lime	133
	Shady Hills	478
	Southern UPS	414
	TECO	70
	Winter 200 Purchase	200
2010	CP&Lime	133
	Shady Hills	478
	SoCo Franklin	342
	SoCo Scherer	71
	Southern UPS	414
	TECO	70

Assumptions

4 Cogeneration contracts include the following contracts by year

Year	Contract	Max MW
2006	Auburn (As Avail)	
	Bay County	11
	Cargill	15
	Dade County	43
	El Dorado	114
	Lake Cogen	110
	Lake County	13
	LFC	17
	Mulberry	79
	Orange Cogen	74
	Orlando Cogen	79
	Pasco Cogen	109
	Pasco County	23
	Pinellas County	55
	Ridge Gen St	40
	Royster	31
2007	Auburn (As Avail)	
	Cargill	15
	Dade County	43
	El Dorado	114
	Lake Cogen	110
	Lake County	13
	LFC	17
	Mulberry	79
	Orange Cogen	74
	Orlando Cogen	79
	Pasco Cogen	109
	Pasco County	23
	Pinellas County	55
	Ridge Gen St	40
	Royster	31
2008 - 2010	Auburn (As Avail)	
	Dade County	43
	El Dorado	114
	G2 Energy	11
	Lake Cogen	110
	Lake County	13
	LFC	17
	Mulberry	79
	Orange Cogen	74
	Orlando Cogen	79
	Pasco Cogen	109
	Pasco County	23
	Pinellas County	55
	Ridge Gen St	40
	Royster	31

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

PROGRESS ENERGY FLORIDA

DOCKET NO. 050078-EI

MINIMUM FILING REQUIREMENTS

SECTION C – NET OPERATING INCOME SCHEDULES
SECTION D – COST OF CAPITAL SCHEDULES

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI Exhibit No. 3
Company/ PEF - Direct
Witness: Javier Portuondo (JP-1)
Date: 05/01/07

Progress Energy

Progress Energy Florida
Docket No. _____
Witness: Javier Portuondo
Exhibit No. ___ (JP-1)
Page 2 of 2

SCHEDULE C-6 Budgeted Versus Actual Operating Revenues and Expenses

FLORIDA PUBLIC SERVICE COMMISSION

Company: PROGRESS ENERGY FLORIDA INC

Docket No: 050078-EI

Explanation: If the test year is PROJECTED, provide the budgeted versus actual operating revenues and expenses by primary account for a historical five year period and the forecasted data for the test year and the prior year

Type of data shown:
XX Projected Test Year Ended 12/31/2006
XX Prior Year Ended 12/31/2005
XX Historical Year Ended 12/31/2004

Witness: Portuondo / DeSouza / Williams / Young / McDonald / Bazemore

Line No.	Account No.	Account Title	(C) 2000 Actual	(D) 2000 Budget	(E) 2001 Actual	(F) 2001 Budget	(G) 2002 Actual	(H) 2002 Budget	(I) 2003 Actual	(J) 2003 Budget	(K) 2004 Actual	(L) 2004 Budget	(M) 2005 Budget	(N) 2006 Budget
1	5012000	Fossil Steam Fuel	4,709	7,286	5,748	8,368	7,804	9,057	5,995	6,224	3,978	5,132	3,917	3,995
2	5182300	Nuclear Fuel - Misc. & Labor	53	29	1,322	-	1,575	1,652	1,577	1,634	1,590	1,640	1,594	1,618
3	5472000	CT Fuel NP	559	590	618	5,276	702	1,120	2,319	-	2,258	3,200	3,147	3,088
4		**Non-Recoverable Fuel Handling Expense**	**5,321**	**7,905**	**7,688**	**13,644**	**10,082**	**11,829**	**9,890**	**7,858**	**7,826**	**9,972**	**8,659**	**8,702**
5														
5		**Operating Expenses - Other Base Recoverable**												
7	5000000	Oper Supv & Engineering	20,933	16,776	19,460	17,254	2,173	3,648	1,475	3,990	1,638	2,418	2,352	2,454
8	5020000	Steam Expenses	3,875	5,729	3,704	6,186	6,732	1,992	7,612	4,765	8,606	8,213	7,177	7,307
9	5045000	Steam Trans - Cr - Steam Prod	(272)	(200)	(738)	(206)	-							
10	5050000	Electric Expenses	1,247	2,378	1,431	1,364	(65)	87	0	322	1	263	304	304
11	5060000	Misc Stm Power Exp	18,988	13,596	11,149	13,446	31,826	17,648	21,683	25,068	18,287	20,010	21,249	24,636
12	5070000	Rents	508	626	-	-	-	-	-	-				
13		**Steam (FOS) Operations**	**45,279**	**38,905**	**35,507**	**38,044**	**30,636**	**23,375**	**30,771**	**35,146**	**28,533**	**30,904**	**31,073**	**34,803**
14	5170000	Oper Supv & Eng - Nuclear	36,749	40,794	30,071	35,215	211	(126)	136	42	6	(0)	376	366
15	5190000	Nuclear Coolants & Water					2,931	2,407	2,872	3,157	2,682	3,183	3,020	3,054
16	5200000	Steam Expenses - Nuclear	225	184	195	189	8,618	11,331	10,832	10,367	9,275	9,865	10,630	10,691
17	5210000	Steam From Oth Source - Nuc	23	-	27		-	-	-	-				
18	5230000	Nuclear Electric Expenses									4	-	13	11
19	5240000	Misc Nuc Power Exp - Train	22,908	22,224	19,669	13,597	28,280	28,566	29,549	24,023	29,247	32,388	32,317	34,894
20	5250000	Rents - Nuclear	12	16	(0)		-	-	-	-				
21		**Nuclear Operations**	**59,917**	**63,218**	**49,962**	**49,001**	**40,041**	**42,178**	**43,390**	**37,589**	**41,214**	**45,436**	**46,356**	**49,037**
22	5460000	Oper Supv & Engineering	6,484	7,622	7,213	9,849	2,716	7,102	7,465	9,855	8,387	7,570	6,200	6,753
23	5480000	Generation Expenses	865	819	858	628	727		3,635	782	4,223	331	180	230
24	5490000	Misc Oth Power Gen Exps	5,853	5,744	5,196	7,261	8,555	9,229	5,520	10,020	6,150	8,367	8,946	9,426
25	5500000	Rents	165	350	325	676	-	-	-	-				
26		**CT Operations**	**13,307**	**14,535**	**13,592**	**18,614**	**12,000**	**16,331**	**16,591**	**20,658**	**18,760**	**16,262**	**15,326**	**16,408**
27	5550000	Sys Con & Load Dispatch	-	-		12	4,532	6,411	4,889	5,247	5,066	6,037	2,684	2,839
28	5570001	Other Power Supply Expenses									23	-		
29		**Other Power Supply Exp - Operations**	-	-	-	**12**	**4,532**	**6,411**	**4,889**	**5,247**	**5,089**	**6,037**	**2,684**	**2,839**
30	5600000	Oper Supv & Engineering	2,289	3,047	3,304	4,755	2,617	2,926	2,660	1,350	2,606	208	1,837	1,832
31	5610000	Load Dispatching	4,418	5,827	5,517	5,511	400		339	314	381	(2)	4,026	4,258
32	5620000	Trans Station Expenses	297	153	11		519	268	159	319	183	272	277	278
33	5630000	Trans Overhead Line Expenses					56	265	53	62	313	65	70	70
34	5650000	Trans of Electricity by Others	5,398	10,435	7,016	10,436	1,176		-	-	3	-		
35	5660000	Misc Transmiss on Exps	5,147	4,865	6,248	3,583	15,408	21,339	12,831	16,921	12,744	16,724	11,423	11,244
36	5670000	Substation	8	8	7	6	-	-	-	-	0			
37		**Transmission Operations**	**17,556**	**24,335**	**22,098**	**24,291**	**20,170**	**24,795**	**15,981**	**18,966**	**16,230**	**17,266**	**17,633**	**17,681**

Supporting Schedules

Recap Schedules

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

PROGRESS ENERGY FLORIDA

DOCKET NO. 050078-EI

MINIMUM FILING REQUIREMENTS

SECTION A – SUMMARY SCHEDULES
SECTION B – RATE BASE SCHEDULES

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060162-EI Exhibit No. 4
Company/ PEF - Direct
Witness: Javier Portuondo-JP-2
Date: 05/01/07

Progress Energy

Progress Energy Florida
Docket No. ________
Witness: Javier Portuondo
Exhibit No. ____ (JP-2)

SCHEDULE B-8 | MONTHLY PLANT BALANCES TEST YEAR - 13 MONTHS

FLORIDA PUBLIC SERVICE COMMISSION

Explanation: Provide the monthly plant balances for each account or sub-account to which an individual depreciation rate is applied. These balances should be the ones used to compute the monthly depreciation expenses excluding any amortization/recovery schedules. ($000)

Company: PROGRESS ENERGY FLORIDA INC

Docket No. 050078-EI

Type of Data Shown:
XX Projected Test Year Ended 12/31/2006
__ Prior Year Ended 12/31/2005
__ Historical Test Year Ended 12/31/2004

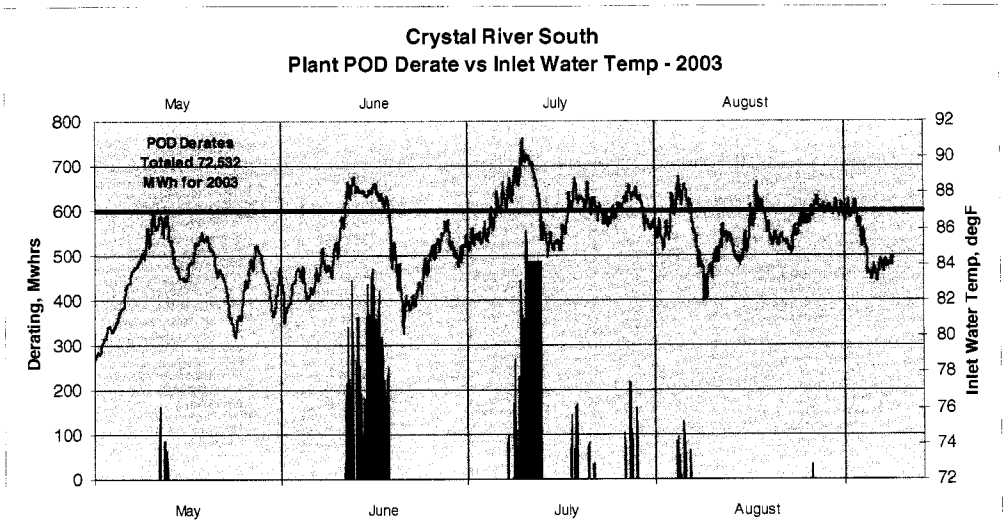
Witness: [illegible]

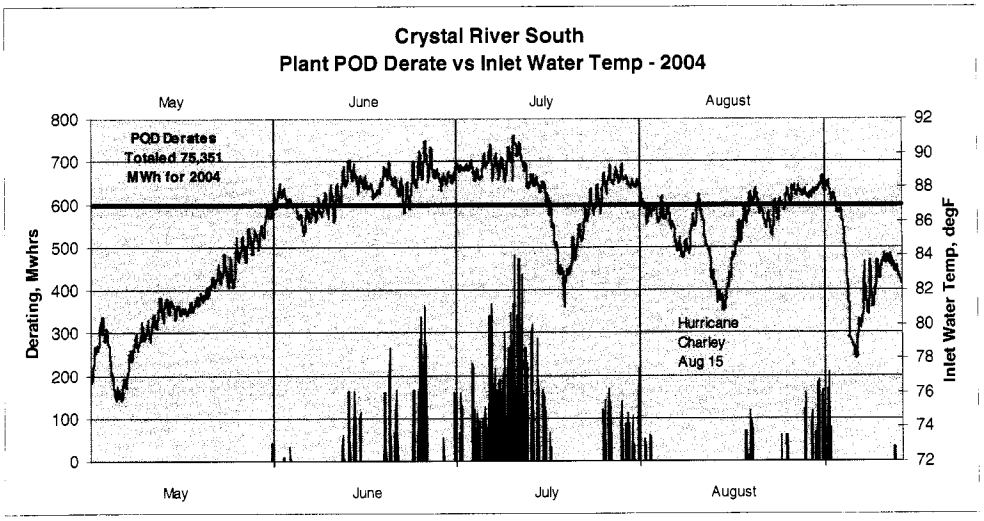
Line No.	(A) Account/ Sub-account Number	(B) Account/ Sub account Title	(Q) Dec-2005 Month 1	(R) Jan-2006 Month 2	(S) Feb-2006 Month 3	(T) Mar-2006 Month 4	(U) Apr-2006 Month 5	(V) May-2006 Month 6	(W) Jun-2006 Month 7	(X) Jul-2006 Month 8	(Y) Aug-2006 Month 9	(Z) Sep-2006 Month 10	(AA) Oct-2006 Month 11	(AB) Nov-2006 Month 12	(AC) Dec-2006 Month 13	(AD) 13-Month Average
1																
2		**Steam Production**														
3		**Anclote Plant**														
4	311	Structures & Improvements	38,595	38,562	38,719	38,768	38,811	38,848	38,879	38,905	38,928	38,948	38,964	38,984	39,000	38,847
5	312	Boiler Plant Equipment	106,791	107,017	107,247	107,515	107,811	108,103	108,367	108,615	108,833	109,058	109,257	109,537	109,790	108,303
6	314	Turbogenerator Units	96,166	96,306	96,486	96,741	97,056	97,381	97,663	97,974	98,234	98,508	98,754	99,113	99,440	97,683
7	315	Accessory Electric Equipment	26,080	26,083	26,091	26,106	26,126	26,148	26,169	26,189	26,207	26,227	26,245	26,272	26,296	26,172
8	316.1	Miscellaneous Equipment	5,768	5,773	5,778	5,785	5,793	5,801	5,808	5,815	5,822	5,828	5,834	5,842	5,850	5,808
9	316.2	Miscellaneous Equipment - 5 Year Amort	122	122	122	122	122	122	122	122	122	122	122	122	122	122
10	316.3	Miscellaneous Equipment - 7 Year Amort	192	193	193	194	194	195	195	195	195	195	196	196	196	194
11		Total Anclote Plant	273,714	274,156	274,636	275,231	275,913	276,597	277,223	277,817	278,341	278,886	279,371	280,065	280,694	277,126
12																
13		Bartow Plant														
14	311	Structures & Improvements	19,805	19,981	20,123	20,236	20,326	20,393	20,457	20,503	20,540	20,570	20,594	20,613	20,628	20,367
15	312	Boiler Plant Equipment	63,220	63,246	63,269	63,292	63,316	63,337	63,356	63,374	63,389	63,404	63,417	63,434	63,449	63,346
16	314	Turbogenerator Units	26,464	26,484	26,502	26,522	26,542	26,561	26,579	26,594	26,608	26,622	26,634	26,651	26,656	26,572
17	315	Accessory Electric Equipment	13,680	13,680	13,681	13,682	13,682	13,682	13,683	13,683	13,683	13,683	13,683	13,684	13,684	13,682
18	316.1	Miscellaneous Equipment	3,070	3,072	3,083	3,108	3,144	3,184	3,222	3,259	3,293	3,330	3,363	3,414	3,460	3,231
19	316.2	Miscellaneous Equipment - 5 Year Amort	192	193	193	194	194	195	195	195	195	196	196	196	196	195
20	316.3	Miscellaneous Equipment - 7 Year Amort	163	167	171	173	175	177	179	180	181	181	182	182	183	176
21		Total Bartow Plant	126,594	126,823	127,022	127,207	127,380	127,536	127,670	127,789	127,889	127,986	128,069	128,172	128,264	127,569
22																
23		Crystal River 1 & 2 Plant														
24	311	Structures & Improvements	74,629	74,637	74,644	74,650	74,656	74,662	74,666	74,670	74,674	74,677	74,680	74,683	74,686	74,663
25	312	Boiler Plant Equipment	166,618	166,765	166,953	167,217	167,541	167,875	168,186	168,485	168,751	169,032	169,284	169,652	169,987	168,180
26	314	Turbogenerator Units	124,728	124,900	125,078	125,288	125,521	125,752	125,961	126,158	126,332	126,511	126,670	126,894	127,067	125,915
27	315	Accessory Electric Equipment	34,532	34,545	34,559	34,575	34,595	34,614	34,632	34,649	34,664	34,680	34,694	34,713	34,731	34,630
28	316.1	Miscellaneous Equipment	5,956	5,963	5,970	5,975	5,980	5,985	5,988	5,991	5,994	5,996	5,998	6,000	6,002	5,985
29	316.2	Miscellaneous Equipment - 5 Year Amort	153	154	154	155	155	155	155	156	156	156	156	156	156	155
30	316.3	Miscellaneous Equipment - 7 Year Amort	98	98	98	98	98	98	98	98	98	98	98	98	98	98
31		Total Crystal River 1 & 2 Plant	406,714	407,062	407,455	407,958	408,546	409,140	409,687	410,207	410,668	411,149	411,578	412,196	412,757	409,624
32																
33		Crystal River 4 & 5 Plant														
34	311	Structures & Improvements	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119	149,119
35	312	Boiler Plant Equipment	466,134	466,124	466,139	466,152	466,162	466,170	466,176	466,181	466,185	466,188	466,191	466,193	466,195	466,166
36	314	Turbogenerator Units	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498	192,498
37	315	Accessory Electric Equipment	81,115	81,122	81,128	81,133	81,136	81,139	81,142	81,144	81,145	81,146	81,147	81,148	81,149	81,138
38	316.1	Miscellaneous Equipment	11,495	11,495	11,485	11,485	11,485	11,486	11,486	11,486	11,486	11,486	11,486	11,486	11,486	11,486
39	316.2	Miscellaneous Equipment - 5 Year Amort	242	243	243	243	243	243	243	243	243	243	243	243	243	243
40	316.3	Miscellaneous Equipment - 7 Year Amort	615	615	615	615	615	615	615	615	615	615	615	615	615	615
41		Total Crystal River 4 & 5 Plant	901,179	901,206	901,227	901,245	901,258	901,269	901,278	901,285	901,291	901,296	901,299	901,302	901,304	901,265
42																

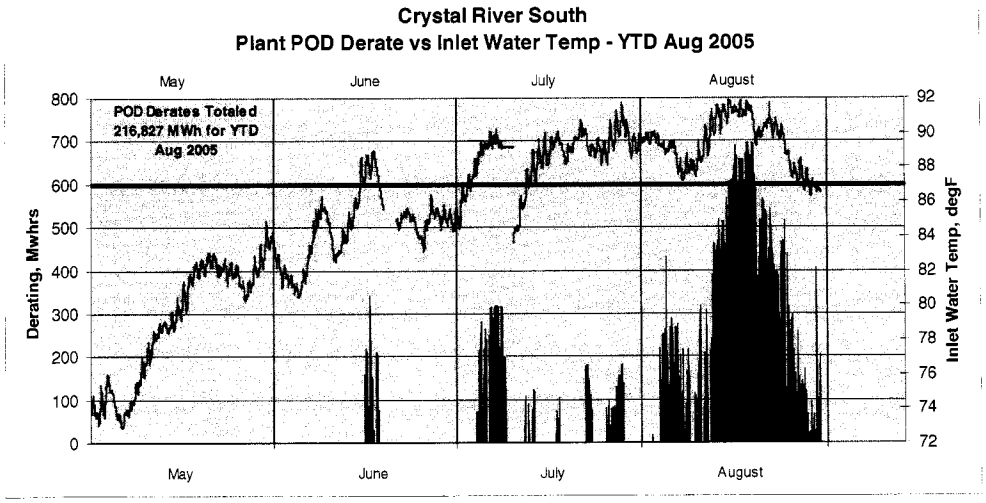
65

Modular Cooling Tower Project

YEAR	Estimated Fuel Cost Savings
2006	$11,000,000
2007	$11,000,000
2008	$8,500,000
2009	$8,000,000
2010	$6,500,000
TOTAL	**$45,000,000**







Derate — Water Temp — 87° Water Temp

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060162-EI Exhibit No. 5
Company/ PEF-Direct
Witness: Thomas Lawery -(TL-1)
Date: 05/01/07

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

NOTICE OF PERMIT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:
Progress Energy Florida
Crystal River Plant Units 1,2 and 3
15760 West Powerline Street
Crystal River , FL34428

DEP File # FL0000159-009-IW1S/NR

Attention: Mr. Michael Olive

Enclosed is Permit FL0000159, issued under Section 403.0885, Florida Statutes, and DEP Chapter 62-620, Florida Administrative Code, authorizing wastewater discharge from the PEF Crystal River Units 1,2,&3, Citrus County to the Gulf of Mexico, a Class III marine water.

Any party to this order (permit) has the right to seek judicial review of the permit under Section 120.68, Florida Statutes, by the filing of a Notice of Appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Jerry Brooks for

Mimi Drew
Director
Division of Water Resource Management

2600 Blair Stone Road
Tallahassee, FL 32399-2400
(850) 245-8336

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI Exhibit No. 6
Company/ PEF - Direct
Witness: Thomas Lawery (TL-2)
Date: 05/01/07

Progress Energy Florida
Crystal River Units 1, 2 and 3
Facility ID Number FL0000159

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 05-05-05 to the listed persons.

[Clerk Stamp]

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52 (9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

G. Shields 05-05-05
(Clerk) (Date)

Copies furnished to:

Chairman, Board of Citrus County Commissioners
Michael Shrader, PEF
Yanisa Angulo, P.E. DEP SWD Tampa
Betsy Hewitt, DEP Tallahassee

SECOND AMENDMENT TO THE FACT SHEET

DATE: April 21, 2005

PERMIT NUMBER: FL0000159

PERMITTEE: Progress Energy Florida (PEF)
Crystal River Units 1,2,&3 Power Plant

The following minor corrections have been made to the proposed permit. None of these corrections alter any of the limitations for discharge to waters of the state.

1. **Typographical Errors in the Proposed Permit:** The Department and the Permittee noted several minor typographical errors which are not itemized below. The Department has corrected these errors, which were non-substantive and did not affect any permit limitations or monitoring requirements.

2. Permittee Comments

The Permittee requested the following minor corrections to the permit.

Condition I.A.9: The Permittee pointed out that that pH limitation for Internal Outfall I-0FE in the Draft and Proposed permits (6.5 to 8.5) was incorrect, and should be 6.0 to 9.0, which is the appropriate Technology Based Effluent Limitation (TBEL) pursuant to 40 CFR Part 423.12, and is consistent with the previous permit. The Department concurs, and corrected the limitation in the permit.

Condition I.E.14: The Permittee requested that the Department clarify the requirement regarding the Amertap condenser cleaning system at Unit 3, by stating in the condition that any substantive changes to the cleaning ball devices or retrieval system must be approved by the Department. This would enable the facility to make minor mechanical repairs that do not potentially impact discharge without requiring specific approval. The Department concurs and has revised the condition in the permit.

3. Department Comment

Condition I.E.17.: The Department added this condition, which was erroneously omitted from the draft and proposed permits, and authorizes the continued use of biocides and chemical additives that were approved for use in the previous permit renewal and its revisions. The condition does not authorize the use of any new biocides or chemical additives.

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:

Progress Energy Florida
Crystal River Units 1, 2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159 (Major)
PA FILE NUMBER: FL0000159-009 -IW1S/NR
ISSUANCE DATE: May 9, 2005
EXPIRATION DATE: May 8, 2010

RESPONSIBLE AUTHORITY:

Mr. Michael Olive
Manager

FACILITY:

Progress Energy Florida
Crystal River Plant Units 1,2 and 3
15760 West Powerline Street
Crystal River, FL 34428
Citrus County

Latitude: 28° 58' 2" N Longitude: 82° 41' 49" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). The Permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of an industrial wastewater treatment and disposal system to serve the referenced facility. The facility consists of two fossil fuel units (Units 1 and 2) and a nuclear fuel unit (Unit 3). These units have a combined maximum permitted daily discharge flow of 1,898 MGD and a total name plate rating of 1,854.8 MW. The facility discharge consists of once-through condenser cooling water, treated nuclear auxiliary cooling water, treated coal pile rainfall run off, intake screen washwater, and treated non-radioactive waste/radiation waste.

The radioactive component of the discharge is regulated by the U.S. Nuclear Regulatory Commission under the Atomic Energy Act and not by the U.S. Environmental Protection Agency under the Clean Water Act.

WASTEWATER TREATMENT:

Wastewater treatment at the facility consists of the following: filtration and or other biocide treatment of once-through non-contact condenser cooling water (OTCW); neutralization, settling, filtration and/or oil/water separation for low volume wastes and metal cleaning wastes..

EFFLUENT DISPOSAL:

Surface Water Discharge:

An existing discharge of OTCW to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-011**, located approximately at latitude 28° 57'30.8" N, longitude 82° 42' 00.7" W.

An existing discharge of OTCW to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-012**, located approximately at latitude 28° 57'31.2" N, longitude 82° 42' 03.0" W.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

An existing discharge of OTCW to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-013**, located approximately at latitude 28° 57'30.9" N, longitude 82° 41' 54.9" W.

An existing discharge of intake screen washwater to the site intake canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-091**, located approximately at latitude 28° 57'24 " N, longitude 82°42 '0.4" W.

An existing discharge of intake screen washwater to the site intake canal thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-092**, located approximately at latitude 28° 57'23.2 " N, longitude 82°42 '01.9" W.

An existing discharge of intake screen washwater to the site intake canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-093**, located approximately at latitude 28° 57'21.6 " N, longitude 82°41 '56.2" W.

An existing discharge from the ash pond to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-0C1**, located approximately at latitude 28° 57'34.7 " N, longitude 82°42 '28.8" W.

An existing discharge from the wastewater pond system to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-0C2**, located approximately at latitude 28° 57'31.0 " N, longitude 82°42 '32.4" W.

An existing discharge of Nuclear Services and Decay Heat Seawater System effluent to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-00F**, located approximately at latitude 28° 57'31.2 " N, longitude 82°41 '55.4" W.

An existing discharge of Coal Pile runoff (Units 1 and 2) to an adjacent salt marsh, a Class III marine water, via **Outfall D-0H**, located approximately at latitude 28° 57' 08.8 " N, longitude 82°42 '12.7" W.

Existing discharges of OTCW from the Helper Cooling Tower system to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfalls D-071 and D-072**, located approximately at latitudes 28° 57' 34.5 " N, longitude 82° 42 '32.0" W, and 28° 57'35.8 " N, longitude 82° 42 '48.5" W, respectively.

An existing discharge of intake screen washwater to the site discharge canal and thence to the Gulf of Mexico, a Class III marine water, via **Outfall D-094**, located approximately at latitude 28° 57'34.4 " N, longitude 82°42 '30.4" W.

Internal Discharges

An existing discharge from internal outfall **I-FG** Regeneration Waste Neutralization Tank to **Outfall D-00F.**

An existing discharge from internal outfall **I-FE** Laundry and Shower Sump Tank effluent to **Outfall D-00F.**

Stormwater Discharges

Existing discharges of stormwater from plant areas to the site intake and discharge canal and thence to the Gulf of Mexico via **Outfalls D-100, D-200, D-300, D-400, D-500. and D-600.**

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 28 of this permit.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

I. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge once-through non-contact condenser cooling water (OTCW) from Outfalls **D-011, D012, D-013** to the site discharge canal thence the Gulf of Mexico. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	**Daily Maximum**	**Daily Average**	**Daily Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Flow (MGD)	See item I.A.3.	Report	--	Continuous	Pump logs [1,2]	EFF-2
Chlorination Duration (MINUTES)	See item I.A.5.	--	--	2/Week	Pump logs	EFF-1A EFF-1B EFF-1C
Oxidants, Total Residual (MG/L)	0.01[3]	Report	--	2/Week	Multiple Grabs	EFF-1A EFF-1B EFF-1C
Temperature (F), Water [Intake] (DEG.F)	Report	Report	--	Continuous	Recorder	INT-1
Temperature (F), Water [Discharge] (DEG.F)[4]	96.5, See item. I.A.4.	Report	--	Continuous	Recorder	EFF-3D
Temp. Diff. between Intake and Discharge (DEG.F)	Report	Report	--	Continuous	Recorder	INT 1, EFF 3D

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

Sample Point	Description of Monitoring Location
EFF-2	At combined circulating water pumps.
EFF-1A	Outlet corresponding to individual condenser for Unit 1
EFF-1B	Outlet corresponding to individual condenser for Unit 2
EFF-1C	Outlet corresponding to individual condenser for Unit 3

[1] Flow is monitored by pump logs and/or valve position (during flow reduction season).
[2] Monitoring and reporting values for temperature, pump status and/or valve position shall be recorded at ten minute intervals.
[3] Limitations and monitoring requirements for total residual oxidants (TRO) and time of TRO discharge for outfalls D-011, D-012, and/or D-013 are applicable only at times when OTCW is being chlorinated
[4] Thermal discharge from this facility is subject to the requirements of Rule 62-302.520(1), F.A.C.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

Sample Point	Description of Monitoring Location
INT-1	Intake at Unit 1, See item 7
EFF-3D	At the bulkhead line which is near the down stream end of the site discharge canal .

3. Combined OTCW discharge from Units 1, 2 and 3 shall not exceed 1,897.9 MGD during the period May 1st through October 31st of each year, or 1,613.2 MGD during the remainder of the year.

4. The discharge temperature monitored at Sampling Point EFF-3D shall not exceed 96.5^{0}F as a three hour rolling average.

5. Discharge of TRO from the condenser of each unit shall not exceed a maximum of 60 minutes in any calendar day, except as follows. TRO may be discharged from one or more individual condensers via outfalls D-011, D-012, D-013, provided that TRO discharge concentration is monitored continuously by recorder(s). Additionally, the maximum instantaneous TRO concentration at each outfall (D-011, D-012, or D-013) shall not exceed 0.01 mg/l.

6. Multiple grab samples shall consist of grab samples collected at the beginning of the period of chlorination discharge, and once every 15 minutes, thereafter. In addition, one grab sample shall be collected at the end of the period of chlorine discharge. The "period of chlorine discharge" refers to all chlorination conducted during a 24-hour period.

7. In the event of an equipment failure of the temperature monitor or recorder at INT-1, temperature shall be monitored by similar instrumentation at either INT-2 or INT-3, which are the intakes for Units 2 and 3, respectively. In such a situation, the Permittee shall maintain records of the change in monitoring location for the monitoring period.

8. Intake screen washwater may be discharged from **Outfalls D-091, D-092, and D-093** without limitation or monitoring requirements.

9. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge laundry and shower wastewater from **Internal Outfall I-0FE to outfall D-00F.** Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	1/Per Batch	Calculation	EFF-4
Oil and Grease (MG/L)	15.0	20.0	--	1/Per Batch	Grab	EFF-4
Solids, Total Suspended (MG/L)	30.0	100.0	--	1/Per Batch	Grab	EFF-4
pH (SU)	--	9.0	6.0	1/Per Batch	Grab	EFF-4
Number of Batches	Report	Report	--	Monthly	Log	EFF-4

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

10. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.9 and as described below:

Sample Point	Description of Monitoring Location
EFF-4	The sample port from the laundry and shower sump tank treatment system, but prior to mixing with any other waste stream.

11. The discharge of metal cleaning wastes through this outfall is not authorized.

12. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge process wastewater from **Outfall D-0C1 Ash Pond and D-0C2-** Wastewater Pond System discharges (Unit 1 and 2 combined) to the site discharge canal thence to the Gulf of Mexico. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	–	Daily, when discharging	Calculation	EFF-5 EFF-6
Oil and Grease (MG/L)	–	5.0	–	Weekly	Grab	EFF-5 EFF-6
Solids, Total Suspended (MG/L)	30.0	100.0	–	3/Week	Grab	EFF-5 EFF-6
Arsenic, Total Recoverable (UG/L)	–	50.0	–	Monthly	Grab	EFF-5 EFF-6
Cadmium, Total Recoverable (UG/L)	–	9.3	–	Monthly	Grab	EFF-5 EFF-6
Chromium, Total Recoverable (UG/L)	–	50.0	–	Monthly	Grab	EFF-5 EFF-6
Copper, Total Recoverable (UG/L)	–	3.7	–	Monthly	Grab	EFF-5 EFF-6
Lead, Total Recoverable (UG/L)	–	8.5	–	Monthly	Grab	EFF-5 EFF-6
Iron, Total Recoverable (MG/L)	–	0.3	–	Monthly	Grab	EFF-5 EFF-6
Mercury, Total Recoverable (UG/L)	–	0.025	–	Monthly	Grab	EFF-5 EFF-6
Nickel, Total Recoverable (UG/L)	–	8.3	–	Monthly	Grab	EFF-5 EFF-6
Selenium, Total Recoverable (UG/L)	–	71	–	Monthly	Grab	EFF-5 EFF-6
PH Standard Units		Report	Report	Monthly	Grab	INT-1

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
PH Standard Units		8.5	6.5	Monthly	Grab	EFF-5 EFF-6
Zinc, Total Recoverable (UG/L)	--	86.0	--	Monthly	Grab	EFF-5 EFF-6

13. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.12 and as described below:

Sample Point	Description of Monitoring Location
INT-1	Intake at unit 1
EFF-5	Discharge from the ash pond prior to mixing with the receiving water.
EFF-6	Discharge from wastewater pond system prior to mixing with the receiving water.

14. Limitations and monitoring are required only when the ash pond is discharging via D-0C1 and/or the wastewater pond system is discharging via D-0C2.

15. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge process wastewater from Outfall D-00F- Nuclear Services and Decay Heat Seawater System effluent [includes discharges from outfall I-FE – Laundry and Shower Sump Tank; (LSST) outfall I-FG –Secondary Drain Tank (SDT); effluent from the Evaporator Condensate Storage Tank (ECST); and effluent from the Condensate System (CD) to the site discharge canal and thence the Gulf of Mexico. Such discharges shall be limited and monitored by the permittee as specified below.

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Maximum	Daily Average	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Hourly	Recorder or calculation	INT-7A
Oil and Grease (mg/l) (CD and ECST)	20	15	--	Weekly, when discharging	Grab	EFF-7B
Oil and Grease (mg/l) (CD and ECST)	5.0[1]	--	--	Weekly, when discharging	Grab	EFF-7
Flow [ECST] (MGD)	Report	Report	--	Daily, when discharging	Recorder or Calculation	EFF-7B
Flow [CD System] (MGD)	Report	Report	--	Daily, when discharging	Recorder or Calculation	EFF-7B

[1] Monitoring requirements are only applicable if the discharge from I-FE and I-FG, the CD discharge or the ECST (following adequate mixing) exceeds the daily maximum limitation of 20.0 mg/l or a minimal dilution rate of 4 to 1 is not achieved as determined by the operator and recorded in logs maintained onsite for inspection by the Department.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Maximum	Daily Average	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Solids, Total Suspended (CD and ECST) (MG/L)	100.0	30.0	--	Weekly, when discharging	Grab	EFF-7B
Solids, Total Suspended (CD and ECST)[D-00F] (MG/L)	100.0[2]	30.0	--	Weekly, when discharging	Grab	EFF-7
Copper, Total Recoverable (UG/L)	3.7[3]	Report	--	Daily, when discharging	Grab	EFF-7
Iron, Total Recoverable (UG/L)	300.0[3]	Report	--	Daily, when discharging	Grab	EFF-7
Total Iron, LBS/MG of Metal Cleaning Waste generated	Report	8.345[3,4]	--	Daily, when discharging	Grab	EFF-7B
Total Copper, LBS/MG of Metal Cleaning Waste generated	Report	8.345[3,4]	--	Daily, when discharging	Grab	EFF-7B
Hydrazine, MG/L	------	Report[5]	----	Per Occurrence	Grab	EFF-7B
Hydrazine, MG/L	------	0.341[5,6]	----	Daily, when discharging	Calculation	EFF-7
Hydroquinone, MG/L	------	Report[5]		Per Occurrence	Grab	EFF-7B
Hydroquinone, MG/L	------	0.12[5,6]	----	Daily, when discharging	Calculation	EFF-7
Total Ammonia (as N), MG/L	------	Report[5]	----	Per Occurrence	Grab	EFF-7B
Total Ammonia (as N), MG/L	------	0.047[5,6]	----	Daily, when discharging	Calculation	EFF-7

[2] Monitoring requirements only applicable if the discharge from I-FE and I-FG, the CD discharge or the ECST (following adequate mixing) exceeds the daily maximum limitation of 100.0 mg/l or a minimal dilution rate of 4 to 1 is not achieved as determined by the operator and recorded in logs maintained onsite for inspection by the Department.

[3] Limitations and monitoring requirements for total iron of MCW, total copper of MCW, total recoverable copper and total recoverable iron are applicable only on any calendar day in which metal cleaning waste is discharged in the effluent from I-FG the Evaporator Condensate Storage Tank and/or the Condensate System.

[4] Limitations apply to the effluents from outfall I-FG, ECST and the Condensate System.

[5] Limitations apply to the ESCT, CD or I-FG discharge. containing steam generator lay up chemicals. One grab sample shall be taken from any batch potentially containing ≥1.0 mg/l of hydrazine, based on the operator's knowledge of the process. The measured concentrations of hydrazine, hydroquinone, ammonia and morpholine shall be reported monthly on the DMR.

[6] The limitations apply at D-0F. Calculation shall be used to determine the concentration of hydroquinone, hydrazine, ammonia and morpholine at D-0F.

$$\text{D-0F concentration (mg/l)} = \frac{(\text{measured concentration (mg/l)})\,(\text{discharge flow})^*}{\text{flow to D-0F}}$$

* The calculation could apply to any batch which potentially contains >1.0 mg/l of hydrazine.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	**Daily Maximum**	**Daily Average**	**Daily Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Morpholine, MG/L	------	Report[5]	------	Per Occurrence	Grab	EFF-7B
Morpholine, MG/L	------	1.78[5,6]	------	Daily, when discharging	Calculation	EFF-7
PH, Standard Units	Report	--	Report	Daily, when discharging	Grab	INT-7A
PH , Standard Units	8.5	--	6.5	Daily, when discharging	Grab	EFF-7
Spectrus CT1300, MG/L	See item I.A.18					EFF-7
Spectrus CT 1300 (MG/L)	Report	Report	Report	1/Application	Grab	EFF-7
Whole Effluent Toxicity (ACUTE)	See item I.A.19					EFF-7

16. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.15 and as described below:

Sample Point	Description of Monitoring Location
INT-7A	Intake flow at the combined water intake pumps.
EFF-3D	At the bulkhead line which is near the down stream end of the site discharge canal.
EFF-7	Prior to mixing with site discharge canal.
EFF-7B	Prior to discharge to outfall D-00F

17. Monitoring for pH in the combined discharge (D-0F) is required only during periods when I-FG and/or CD is discharging. If no discharge from I-FG or CD occurs, sampling shall be during next discharge of I-FG and/or CD into the combined discharge at D-0F.

18. Spectrus CT1300 shall be used only in accordance with the following procedures:

a.) There will be an interval of at least 21 days between any two successive applications, unless more frequent applications are requested in writing and approved in writing by the Department within 14 days of receipt of the request.

b.) CT1300 may be applied at a rate not to exceed 4.5 mg/l through the Unit 3 service water system. No application period may exceed 18 hours, unless approved in writing by the Department.

c.) Progress Energy will record and retain the following information of each CT1300 treatment

1. time of initiation and completion of treatment,
2. mass and concentration of CT1300 during the test period, and
3. results of toxicity testing, if applicable.

d.) When toxicity testing is required, PEF will submit the information specified in Condition I.A.16.d. above to the Department within fourteen days of receipt.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

19. The permittee shall initiate the series of tests described below beginning within 60 days of the issuance of the permit to evaluate whole effluent toxicity of the discharge from Outfall D-00F. All test species, procedures and quality assurance criteria used shall be in accordance with Methods for Measuring Acute Toxicity of Effluents to Freshwater and Marine Organisms, 5th ed. EPA-821-R-02-012, or the most current edition.

The control water and the effluent used will be adjusted to an appropriate salinity using artificial sea salts as described in EPA-821-R-02-012, Section 7.4.2., or the most current edition. The appropriate tests salinity shall be determined as follows:

When the salinity of the effluent is between 1 and 7 parts per thousand (ppt), the following salinity adjustment shall be used in the test of 100% effluent. For the Americamysis (Mysidopsis) bahia bioassays, the effluent and the control (0% effluent) shall be adjusted to a salinity of 7±1 ppt for the 100% effluent test using artificial sea salts. No salinity adjustment shall be done for the Menidia beryllina bioassay test of the 100% effluent. When the salinity of the effluent is greater than 7 parts per thousand, no salinity adjustment shall be made and the test shall be run at the effluent's salinity for both species.

A standard reference toxicant quality assurance (QA) acute toxicity test shall be conducted concurrently or no greater than 30 days before the date of the "routine" test, with each species used in the toxicity tests. The results of all QA toxicity tests shall be submitted with the discharge monitoring report (DMR). Any deviation from the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.

a. (1) The permittee shall conduct 96-hour acute static renewal toxicity tests using the mysid shrimp, Americamysis (Mysidopsis) bahia, and the inland silverside, Menidia beryllina. All tests will be conducted on four separate grab samples collected at evenly-spaced (6-hr) intervals over a 24-hour period and used in four separate tests in order to catch any peaks of toxicity and to account for daily variations in effluent quality.

(2) If control mortality exceeds 10% for either species in any test, the test for that species (including the control) shall be repeated. A test will be considered valid only if control mortality does not exceed 10% for either species. If, in any separate grab sample test, 100% mortality occurs prior to the end of the test, and control mortality is less than 10% at that time, that test (including the control) shall be terminated with the conclusion that the sample demonstrates unacceptable acute toxicity.

b. (1) The toxicity tests specified above shall be conducted once every two months until 6 valid bimonthly tests are completed. These tests are referred to as "routine" tests. Upon the completion of six valid tests which demonstrate that no unacceptable toxicity (as defined in d.1.) has been identified, the permittee may petition the Department for a reduction in monitoring frequency.

(2) Results from "routine" tests shall be reported according to EPA-821-R-02-012, Section 12, Report Preparation (or the most current edition), and shall be submitted to:

Florida Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8378

(3) Results from "routine" tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
i. If greater than 50% mortality occurs in any of the four separate grab sample tests for the test species, "<100" (less than 100% effluent) should be entered on the DMR for that test species.
ii. If 50% or less mortality occurs in all four separate grab sample tests for the test species, ">100" (greater than 100% effluent) should be entered on the DMR for that test species.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

iii. For each of the additional tests required, the calculated LC50 value should be entered on the DMR for that test species.

c. (1) All "routine" tests shall be conducted using a control (0% effluent) and one test concentration of 100% final effluent.

(2) Mortalities of greater than 50% in any sample of 100% effluent in any "routine" test or an LC50 of less than 100% effluent in any additional definitive test will constitute a violation of these permit conditions and Rule 62-4.244(3)(a), F.A.C.

d. (1) If unacceptable acute toxicity (greater than 20% mortality in any grab sample of 100% effluent) is determined in a "routine" test, the permittee shall conduct three additional tests on each species indicating acute toxicity. The first additional test will include four grab samples taken as described in a.1. and run as four separate definitive analyses. The second and third additional definitive tests will be run on a single grab sample collected on the day and time when the greatest toxicity was identified in the "routine" test. Results for each additional test will include the determination of LC50 values with 95% confidence limits.

(2) Each additional test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5% and 6.25% effluent and a control (0% effluent). The dilution series may be modified in the second and third test to more accurately identify the toxicity, such that at least two dilutions above and two dilutions below the target toxicity and a control (0% effluent) are run.

(3) For each additional test, the sample collection requirements and the test acceptability criteria specified in section a. above must be met for the test to be considered valid. The first test shall begin within two weeks of the end of the "routine" tests, and shall be conducted weekly thereafter until three additional, valid tests are completed. The additional tests will be used to determine if the toxicity found in the "routine" test is still present.

(4) Results from additional tests, required due to unacceptable toxicity in the "routine" tests, shall be submitted in a single report prepared according to EPA-821-R-02-012, Section 12, or the most current edition and submitted within 45 days of completion of the third additional, valid test. If the additional tests demonstrate unacceptable toxicity, the permittee will meet with the Department within 30 days of the report submittal to identify corrective actions necessary to remedy the unacceptable toxicity.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

20. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge process wastewater from Internal **Outfall I-0FG** to **Outfall D-00F** Regeneration Waste Neutralization Tank. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow, (MGD)	Report	Report	--	1/Batch	Calculated	EFF-8
Copper, Total Recoverable, lbs/MG	--	8.345[1]	--	1/Batch	Grab	EFF-8
Iron, Total Recoverable lbs/MG	--	8.345[1]	--	1/Batch	Grab	EFF-8
Oil and Grease, (MG/L)	15.0	20.0	--	1/Batch	Grab	EFF-8
Total Suspended Solids, MG/L	30.0	100.0	--	1/Batch	Grab	EFF-8
PH , Standard Units	--	9.0	6.0	1/Batch	Grab	EFF-8

21. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.20 and as described below:

Sample Point	Description of Monitoring Location
EFF-8	At outfall I-FG prior to mixing with outfall D-00F

22. During the period beginning on the effective date of this permit and lasting through the expiration, the permittee is authorized to discharge stormwater from Outfall **D-00H**- Coal Pile Runoff (Units 1 and 2) to the marshy area (wetlands) west of the coal pile storage area. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	--	Report	--	Daily, when discharging	Calculated	EFF-9
Solids, Total Suspended (MG/L)	--	50.0 See cond. 24	--	Daily, when discharging	Grab	EFF-9
Arsenic, Total Recoverable (UG/L)	--	50.	--	Daily, when discharging	Grab	EFF-9
Cadmium, Total Recoverable (UG/L)	--	9.30	--	Daily, when discharging	Grab	EFF-9
Chromium, Total Recoverable (UG/L)	--	50.0	--	Daily, when discharging	Grab	EFF-9

[1] The limitation is applicable only when metal cleaning waste is discharged through outfall I-0FG

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Copper, Total Recoverable (UG/L)	--	3.7	--	Daily, when discharging	Grab	EFF-9
Iron, Total Recoverable (MG/L)	--	0.3	--	Daily, when discharging	Grab	EFF-9
Lead, Total Recoverable (UG/L)	--	8.5	--	Daily, when discharging	Grab	EFF-9
Mercury, Total Recoverable (UG/L)	--	0.025	--	Daily, when discharging	Grab	EFF-9
Nickel, Total Recoverable (UG/L)	--	8.30	--	Daily, when discharging	Grab	EFF-9
Selenium, Total Recoverable (UG/L)	--	71.0	--	Daily, when discharging	Grab	EFF-9
Zinc, Total Recoverable (UG/L)	--	86.0	--	Daily, when discharging	Grab	EFF-9
Vanadium, Total Recoverable (PPM)	--	Report	--	Daily, when discharging	Grab	EFF-9
PH (SU)		8.5	6.5	Daily, when discharging	Grab	INT-3B
PH (SU)		8.5	6.5	Daily, when discharging	Grab	EFF-9

23. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.22 and as described below:

Sample Point	Description of Monitoring Location
EFF-9	Point of discharge from the treatment system prior to entering wetlands area.
INT-3B	Intake at Unit 2

24. The treatment system (coal pile storage area) shall be capable of containing a 10 year, 24-hour (10Y 24H) rainfall event. The limitation for total suspended solids of 50 mg/l shall apply only to discharges resulting from rainfall less than a 10-year 24 –hour rainfall event.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

25. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge once-through non-contact cooling water from **Outfalls D-071 and D-072** Helper Cooling Tower to the site discharge canal and thence to the Gulf of Mexico. Such discharge shall be limited and monitored by the permittee as specified below:

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	**Daily Maximum**	**Daily Average**	**Daily Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Intake Flow (MGD)	Report	Report	--	Continuous	Pump logs	INT-10A
Oxidants, Total Residual (MG/L)	0.01[1]	Report	--	Continuous	Recorder	EFF-10B
TRO-Discharge Time (MIN/DAY)	60.0, see cond. I.A.28.	--	--	Continuous	Recorder	EFF-10B
pH (SU)	Report	--	Report	Quarterly	Grab	INT-10A
PH (SU)	8.5	--	6.5	Quarterly	Grab	EFF-10B

26. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.25 and as described below:

Sample Point	Description of Monitoring Location
INT-10A	Common intake for all helper cooling tower intake pumps
EFF-10A	At Outfall D-071 from helper cooling towers 1 and 2 to the site discharge canal.
EFF-10B	At Outfall D-072 from helper cooling towers 3 and 4 to the site discharge canal.

27. Cooling towers shall be operated as necessary to ensure that the discharge temperature at Sampling Location EFF-3D does not exceed 96.5 F as a three-hour rolling average.

28. TRO may be discharged from either or both Outfalls D-071 and D-072 at the same time TRO is discharged from Outfalls D-011, D-012, and D-013, provided that TRO discharge from either D-071 or D-072 does not exceed a maximum instantaneous concentration of 0.01 mg/l.

29. Monitoring requirements are only applicable during periods of discharge.

30. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge intake screen wash waste water from **Outfall D-094** to the site discharge canal thence the Gulf of Mexico without limitation or monitoring requirements.

31. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge stormwater from **Outfalls D-100, D-200, D-300, D-400, and D-500** to the site discharge canal and thence to the Gulf of Mexico without limitation or monitoring requirements.

32. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge storm water from **Outfall D-600** Plant Area to the site intake canal and thence to the Gulf of Mexico. Such discharge shall be limited and monitored by the permittee as specified below:

[1] Limitations and monitoring requirements for TRO and time of TRO discharge for outfall D-071 and outfall D-072 are not applicable for any calendar day in which chlorine is not added.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Daily Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	--	Report	--	Monthly, when discharging	Calculated	EFF-600
Total recoverable iron (UG/L)	--	Report	--	Monthly, when discharging	Grab	EFF-600

33. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.32 and as described below:

Sample Point	Description of Monitoring Location
EFF-600	Prior to discharge from Outfall D-600 to the intake canal.

34. Stormwater from No. 2 Fuel Oil Tank Diked Petroleum Storage or Handling Area

a. Permittee is authorized to discharge stormwater from diked petroleum storage or handling areas, provided the following conditions are met:

b. Such discharges shall be limited and monitored by the permittee as specified below:

1. The facility shall have a valid SPCC Plan pursuant to 40 CFR 112.
2. In draining the diked area, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining.
3. Monitoring records shall be maintained in the form of a log and shall contain the following information, as a minimum:
   a.) Date and time of discharge,
   b.) Estimated volume of discharge,
   c.) Initials of person making visual inspection and authorizing discharge, and
   d.) Observed conditions of storm water discharged.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of a visible oil sheen at any time.

35. As specified above, sampling for the storm water discharge shall be conducted once per discharge event.

36. There shall be no discharge of floating solids or visible foam in other than trace amounts.

37. The discharge shall not cause a visible sheen on the receiving water.

B. Underground Injection Control Systems

This section is not applicable to this facility.

C. Land Application Systems

The land application system for this facility is regulated under separate Department Permit FLA0169690

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

D. Other Methods of Disposal or Recycling

There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated June 21, 1996, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported PQL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 FAC; and

   c. If the PQLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated PQL shall be used.

   Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. However, where necessary, the permittee may request approval for alternative methods or for alternative MDLs and PQLs for any approved analytical method, in accordance with the criteria of Rules 62-160.520 and 62-160.530, F.A.C.

2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136.

3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Southwest District Office Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

REPORT Type On DMR	Monitoring Period	DMR Due Date
Monthly or Toxicity	First day of month – last day of month	28th day of following month
Quarterly	January 1 – March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	April 28 July 28 October 28 January 28
Semi Annual	January 1-June 30 July 1- December 31	July 28 January 28
Annual	January 1-December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge.

The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department at the address specified below:

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3550
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

4. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:

   Southwest District Office
   3804 Coconut Palm Drive.
   Tampa, Florida 33619-8378

   Phone Number – (813) 744-6100
   FAX Number - (813) 744-8198 (All FAX copies shall be followed by original copies.)

5. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C

6. The permittee shall provide safe access points for obtaining representative samples which are required by this perm it.

7. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge

8. There shall be no discharge of polychlorinated biphenyl compounds.

9. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit.

A permit revision from the Department shall be required prior to the use of any biocide or chemical additive used in the cooling system or any other portion of the treatment system which may be toxic to aquatic life. The permit revision request shall include:

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

a. Name and general composition of biocide or chemical
b. Frequencies of use
c. Quantities to be used
d. Proposed effluent concentrations
e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/600/4-90/027 entitled, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, or most current addition.)
f. Product data sheet
g. Product label

The Department shall review the above information to determine if a substantial or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without a permit revision by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

10. Discharge of any waste resulting from the combustion of toxic, hazardous, or metal cleaning wastes to any waste stream which ultimately discharges to waters of the State is prohibited, unless specifically authorized elsewhere in this permit.

11. Any bypass of the treatment facility which is not included in the monitoring specified in I.A, I.B, I.C, or I.D, is to be monitored for flow and all other required parameters. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or estimated, as appropriate , to obtain reportable data. All monitoring results shall be reported on the appropriate DMR.

12. The Permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on May 15, 2002.

13. -Combined Waste Streams

In the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property attributable to each controlled waste source shall not exceed the specified limitation for that waste source (ref. 40 CFR Section 423.15(k);1974).

14. Condenser Maintenance Program

a.) The permittee is authorized to use SIDTEC, a mechanical on-line condenser maintenance service program at Units 1 and 2.

b.) The permittee is authorized to use the existing Amertap Condenser Cleaning System at Unit 3, or an equivalent system. However, any substantive change to the cleaning ball devices or ball retrieval system is subject to approval by the Department..

15. The permittee shall develop a Plan of Study (POS) for seagrass monitoring pursuant to the schedule in Item VI.2, including a proposed implementation schedule, for continued monitoring of seagrass recovery. The Department will review the evaluation plan and implementation schedule for revision, as needed

16. The Permittee shall develop an evaluation plan in accordance with Rule 62-302.520(1), F.A.C., pursuant to the schedule in item VI. 3, including a proposed implementation schedule, designed to determine any effects on biological communities from the heated water discharge to Crystal Bay. The plan shall address monitoring of submerged grasses, benthic macroinvertebrates, and other aquatic species as appropriate, and shall include reporting requirements. The evaluation plan shall incorporate existing data developed by the Permittee and available data other sources as well as any additional monitoring to be conducted by the Permittee, if necessary. The Department will review the evaluation plan and implementation schedule for revision, as needed.

17. The Permittee is authorized to use the following previously approved chemical additives and biocides: Spectrus CT-1300, Dianodic DN2140, Spectrus NX1103, Spectrus NX1100, and Foamtrol AF1440.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

II. Industrial Sludge Management Requirements

This section not applicable to this facility.

III. Ground Water Monitoring Requirements

This section is not applicable to this facility.

IV. Other Land Application Requirements

Land application requirements for this facility are regulated by separate Department permit FLA016960.

V. Operation and Maintenance Requirements

A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.
2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

B. Record keeping Requirements:

1. The permittee shall maintain the following records on the site of the permitted facility and make them available for inspection:

a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;

c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;

d. A copy of the current permit;

e. A copy of any required record drawings;

f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

VI. Schedules

1. A Best Management Practices Pollution Prevention (BMP3) Plan shall be prepared and implemented in accordance with Part VII of this permit and the following schedule:

Action Item		Scheduled Completion Date
1	Continue Implementing Existing BMP3 Plan	Issuance Date of Permit

2. Within three months after issuance of this permit, the Permittee shall meet with the Department to discuss the content of a Plan of Study (POS) for a seagrass study in accordance with the requirements of Item I.E.15, and shall submit the POS within six months of issuance of this permit.
3. Within six months after issuance of this permit, the Permittee shall meet with the Department to discuss the content of a Plan of Study (POS) for biological monitoring in accordance with the requirements of Item I.E.16, and shall submit the POS within twelve months of issuance of this permit.
4. The permittee shall achieve compliance with the other conditions of this permit as follows:

   Operational level attained Issuance Date of permit
5. No later than 14 calendar days following a date identified in the above schedule(s) of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by an identified date, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement
6. The permittee shall comply with the requirements of 40 CFR part 125.9(a)(1) and (2) no later than upon submittal of a timely application for permit renewal, submitted pursuant to the requirements of condition VII.C. of this permit.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the Southwest District Office, are made a part hereof.
2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.
3. This permit satisfies Industrial Wastewater program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

B. Specific Conditions Related to Construction

This section is not applicable to this facility.

C. Duty to Reapply

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005
Expiration date: May 8, 2010

2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, F.A.C., and in the manner established in Chapter 62-620, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.

3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.

4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

D. Specific Conditions Related to Best Management Practices/Pollution Prevention Conditions

1. General Conditions

In accordance with Section 304(e) and 402(a)(2) of the Clean Water Act (CWA) as amended, 33 U.S.C. §§ 1251 et seq., and the Pollution Prevention Act of 1990, 42 U.S.C. §§ 13101-13109, the permittee must develop and implement a plan for utilizing practices incorporating pollution prevention measures. References to be considered in developing the plan are "Criteria and Standards for Best Management Practices Authorized Under Section 304(e) of the Act," found at 40 CFR 122.44 Subpart K and the Waste Minimization Opportunity Assessment Manual, EPA/625/7-88/003.

a. Definitions

(1) The term "pollutants" refers to conventional, non-conventional and toxic pollutants.

(2) Conventional pollutants are: biochemical oxygen demand (BOD), suspended solids, pH, fecal coliform bacteria and oil & grease.

(3) Non-conventional pollutants are those which are not defined as conventional or toxic.

(4) Toxic pollutants include, but are not limited to: (a) any toxic substance listed in Section 307(a)(1) of the CWA, any hazardous substance listed in Section 311 of the CWA, or chemical listed in Section 313(c) of the Superfund Amendments and Reauthorization Act of 1986; and (b) any substance (that is not also a conventional or non-conventional pollutant except ammonia) for which EPA has published an acute or chronic toxicity criterion.

(5) "Pollution prevention" and "waste minimization" refer to the first two categories of EPA's preferred hazardous waste management strategy: first, source reduction and then, recycling.

(6) "Recycle/Reuse" is defined as the minimization of waste generation by recovering and reprocessing usable products that might otherwise become waste; or the reuse or reprocessing of usable waste products in place of the original stock, or for other purposes such as material recovery, material regeneration or energy production.

(7) "Source reduction" means any practice which: (a) reduces the amount of any pollutant entering a waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and (b) reduces the hazards to public health and the environment associated with the release of such pollutant. The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control. It does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a pollutant through a process or activity which itself is not integral to, or previously considered necessary for, the production of a product or the providing of a service.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

(8) "BMP3" means a Best Management Plan incorporating the requirements of 40 CFR § 122.44, Subpart K, plus pollution prevention techniques associated with a Waste Minimization Assessment.

(9) "Waste Minimization Assessment" means a systematic planned procedure with the objective of identifying ways to reduce or eliminate waste.

2. Best Management Practices/Pollution Prevention Plan

The permittee shall develop and implement a BMP3 plan for the facility which is the source of wastewater and storm water discharges covered by this permit. The plan shall be directed toward reducing those pollutants of concern which discharge to surface waters and shall be prepared in accordance with good engineering and good housekeeping practices. For the purposes of this permit, pollutants of concern shall be limited to toxic pollutants, as defined above, known to the discharger. The plan shall address all activities which could or do contribute these pollutants to the surface water discharge, including process, treatment, and ancillary activities. The BMP3 plan shall contain the following components:

a. Signatory Authority & Management Responsibilities

The BMP3 plan shall be signed by the permittee or their duly authorized representative in accordance with rule 62-620.305(2)(a) and (b). The BMP3 plan shall be reviewed by the plant environmental/engineering staff and plant manager. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the BMP3 plan shall be signed and sealed by the professional(s) who prepared them.

A copy of the plan shall be retained at the facility and shall be made available to the Department upon request.

The BMP3 plan shall contain a written statement from corporate or plant management indicating management's commitment to the goals of the BMP3 program. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the BMP3 plan.

b. BMP3 Plan Requirements

(1) Name & description of facility, a map illustrating the location of the facility & adjacent receiving waters, and other maps, plot plans or drawings, as necessary;

(2) Overall objectives (both short-term and long-term) and scope of the plan, specific reduction goals for pollutants, anticipated dates of achievement of reduction, and a description of means for achieving each reduction goal;

(3) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;

(4) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and

c. Waste Minimization Assessment

The permittee is encouraged but not required to conduct a waste minimization assessment (WMA) for this facility to determine actions that could be taken to reduce waste loadings and chemical losses to all wastewater and/or storm water streams as described in Part VII.D.3 of this permit.

If the Permittee elects to develop and implement a WMA, information on plan components can be obtained from the Department's Industrial Wastewater website, or from:

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

Florida Department of Environmental Protection
Industrial Wastewater Section, Mail Station 3545
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

(850) 245-8589
(850) 245-8669 -- Fax

d. Best Management Practices & Pollution Prevention Committee Recommended:

A Best Management Practices Committee (Committee) should be established to direct or assist in the implementation of the BMP3 plan. The Committee should be comprised of individuals within the plant organization who are responsible for developing the BMP3 plan and assisting the plant manager in its implementation, monitoring of success, and revision. The activities and responsibilities of the Committee should address all aspects of the facility's BMP3 plan. The scope of responsibilities of the Committee should be described in the plan.

e. Employee Training

Employee training programs shall inform personnel at all levels of responsibility of the components & goals of the BMP3 plan and shall describe employee responsibilities for implementing the plan. Training shall address topics such as good housekeeping, materials management, record keeping & reporting, spill prevention & response, as well as specific waste reduction practices to be employed. Training shall also disclose how individual employees may contribute suggestions concerning the BMP3 plan or suggestions regarding Pollution Prevention. The plan shall identify periodic dates for such training.

f. Plan Development & Implementation

The BMP3 plan shall be implemented upon the effective date of this permit, unless any later dates are specified in this permit. If a WMA is ongoing at the time of development or implementation it may be described in the plan. Any waste reduction practice which is recommended for implementation over a period of time may also be identified in the plan, including a schedule for its implementation.

g. Submission of Plan Summary & Progress/Update Reports

(1) Plan Summary: Not later than 2 years after the effective date of the permit, a summary of the BMP3 plan shall be developed and maintained at the facility and made available to the Department upon request. The summary shall include the following: a brief description of the plan, its implementation process, schedules for implementing identified waste reduction practices, and a list of all waste reduction practices being employed at the facility. The results of WMA studies, as well as scheduled WMA activities may be discussed.

(2) Progress/Update Reports: Annually thereafter for the duration of the permit progress/update reports documenting implementation of the plan shall be maintained at the facility and made available to the Department upon request. The reports shall discuss whether or not implementation schedules were met and revise any schedules, as necessary. The plan shall also be updated as necessary and the attainment or progress made toward specific pollutant reduction targets documented. Results of any ongoing WMA studies as well as any additional schedules for implementation of waste reduction practices may be included.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

(3) A recommended timetable for the various plan requirements follows:

Timetable for BMP3 Plan:

ELEMENT	TIME FROM EFFECTIVE DATE OF THIS PERMIT
Complete WMA (if appropriate)	6 months
Progress/Update Reports	3 years, and then annually thereafter

The permittee shall maintain the plan and subsequent reports at the facility and shall make the plan available to the Department upon request.

h. Plan Review & Modification

If following review by the Department, the BMP3 plan is determined insufficient, the permittee will be notified that the BMP3 plan does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

The permittee shall modify the BMP3 plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the State or if the plan proves to be ineffective in achieving the general objectives of reducing pollutants in wastewater or storm water discharges. Modifications to the plan may be reviewed by the Department in the same manner as described above.

E. Specific Conditions Related to Existing Manufacturing, Commercial, Mining, and Silviculture Wastewater Facilities or Activities

1. Existing manufacturing, commercial, mining, and silvicultural wastewater facilities or activities that discharge into surface waters shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels

(1) One hundred micrograms per liter,
(2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony, or
(3) Five times the maximum concentration value reported for that pollutant in the permit application.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels

(1) Five hundred micrograms per liter,
(2) One milligram per liter for antimony, or
(3) Ten times the maximum concentration value reported for that pollutant in the permit application.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

F. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;

   b. Controls any pollutant not addressed in the permit.

   The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1), F.A.C.]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2), F.A.C.]*

3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3), F.A.C.]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4), F.A.C.]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5), F.A.C.]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6), F.A.C.]*

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7), F.A.C.]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8), F.A.C.]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to

   a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
   b. Have access to and copy any records that shall be kept under the conditions of this permit;
   c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
   d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

   [62-620.610(9), F.A.C.]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10), F.A.C.]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]*

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer. *[62-620.610(14), F.A.C.]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;
    b. The period of the anticipated noncompliance, including dates and times; and
    c. Steps being taken to prevent future occurrence of the noncompliance.
    [62-620.610(17), F.A.C.]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).
    b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
    d. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300(4), F.A.C. The laboratory must be certified for any specific method and analyte combination that is used to comply with this permit. For domestic wastewater facilities, the on-site test procedures specified in Rule 62-160.300(4), F.A.C., shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 62-602, F.A.C.
    e. Fields activities including on-site tests and sample collection, whether performed by a laboratory or a certified operator, must follow the applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used where they have been approved according to the requirements of Rules 62-160.220, 62-160.330, and 62-160.600, F.A.C.
    [62-620.610(18), F.A.C.]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*

20. The permittee shall report to the Department's Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

    a. The following shall be included as information which must be reported within 24 hours under this condition:
        (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
        (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

(3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
(4) Any unauthorized discharge to surface or ground waters.

b. Oral reports as required by this subsection shall be provided as follows:
(1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.4 that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
(a) Name, address, and telephone number of person reporting;
(b) Name, address, and telephone number of permittee or responsible person for the discharge;
(c) Date and time of the discharge and status of discharge (ongoing or ceased);
(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
(e) Estimated amount of the discharge;
(f) Location or address of the discharge;
(g) Source and cause of the discharge;
(h) Whether the discharge was contained on-site, and cleanup actions taken to date;
(i) Description of area affected by the discharge, including name of water body affected, if any; and
(j) Other persons or agencies contacted.
(2) Oral reports, not otherwise required to be provided pursuant to subparagraph b(1) above, shall be provided to Department's Southwest District Office within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southwest District Office shall waive the written report.

[62-620.610(20), F.A.C.]

21. The permittee shall report all instances of noncompliance not reported under Conditions VIII. 18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII. 20. of this permit. *[62-620.610(21), F.A.C.]*

22. Bypass Provisions.

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.

b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

PERMITTEE:
Progress Energy Florida
Crystal River Units 1,2, and 3
P.O. Box 14042
St. Petersburg, FL 34428

PERMIT NUMBER: FL0000159
Issuance date: May 9, 2005

Expiration date: May 8, 2010

c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a. (1) through (3) of this permit.
d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit.
[62-620.610(22), F.A.C.]

23. Upset Provisions
a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
(4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.
b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.
[62-620.610(23), F.A.C.]

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Jenny Brooks for
Mimi A. Drew
Director
Division of Water Resource Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 245-8336

Department of Environmental Protection

Environmental Services

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

May 11, 2006

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Michael Shrader
Progress Energy Florida, Inc.
100 Central Avenue, MAC CX1B
St. Petersburg, Florida 33701

RE: Progress Energy
DEP File FL0000159-010-IWB/MR
Crystal River Units 1, 2, and 3

Dear Mr. Shrader:

The Department has received Progress Energy's application dated April 28, 2006 for a minor revision of wastewater permit FL0000159. The minor revision requests the installation of 67 modular cooling towers at the Crystal River plant that will be used to augment the cooling capacity of the existing helper cooling towers.

The Department has determined that this activity qualifies as a minor modification of the operations at the Crystal River Plant pursuant to Rule 62-620.200(24), Florida Administrative Code (F.A.C.), and can be authorized by a minor permit revision pursuant to Rule 62-620.325(2), F.A.C. This letter and attachment constitute a minor revision to the referenced wastewater permit.

This letter and attachment shall be attached to Permit FL0000159. All other conditions of this permit shall remain in effect. If Florida Progress objects to this permit revision it may petition for an administrative hearing in accordance with the enclosed Notice of Rights. Although not required, Florida Progress may elect to provide publication of appropriate Public Notice of Rights language in a local newspaper. If so, please contact the Department for appropriate public notice language.

If a petition is filed, then this permit revision does not become effective. If you have any questions about this permit revision, please contact Allen Hubbard of the Industrial Wastewater Section at (850) 245-8592.

Sincerely,

Mimi A. Drew
Director
Division of Water Resource Management

MAD/wfr/mh

cc: Bernie Cumbie, Progress Energy
Yanisa Angulo – FDEP Tampa

NOTICE OF RIGHTS

A person whose substantial interests are affected by this permit revision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. A petitioner, other than the applicant, shall mail a copy of the petition to the applicant at the address indicated in the attached letter at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the Department case identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department action;

(c) A statement of how each petitioner's substantial interests are affected by the Department action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;

(f) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Statement of Basis
For
Minor Permit Revision

Permit Number: FL0000159

Application Date: April 28, 2006
Application No: FL0000159-010-IWB/MR

Name and Address of Applicant:

Progress Energy Florida, Inc,
15760 West Powerline St.
Crystal River, FL 34428

Crystal River Units 1, 2, and 3

The Department received a minor revision application dated April 28, 2006 for the installation of 67 modular cooling towers at the Crystal River plant that will be used to augment the cooling capacity of the existing helper cooling towers. The helper cooling towers are located adjacent to the plant discharge canal and are used to reduce the temperature of the discharge. The modular cooling towers were selected as a means of providing additional cooling capacity in order to meet discharge thermal limits without the need to de-rate power generating units.

The modular cooling towers will be located adjacent to the existing Helper Cooling Towers (HCT). Intake water will be supplied from the existing HCT inlet structure. New pumps located at the existing HCT inlet structure along with added flow from the existing pumps will provide an additional 140,000 gpm to the modular cooling towers. Water from the modular cooling towers will be discharged back to the discharge canal via the existing HCT discharge structures. Four existing pumps located at the HCT inlet structure provide a total flow of 687,000 gpm to the existing HCTs. The installation and operation of the new pumps and modular cooling towers will not have any effect on the intake cooling water flow rate to the plant and, therefore, will not have any effect on impingment and entrainment losses at the plant intake. The discharge flow rate at the end of the discharge canal will also not be changed as a result of the modular cooling tower installation and operation.

The expected canal temperature decrease will be 1.5 to 2.0 degrees F when all modular tower cells are operating. The modular cooling towers will be only be operated as needed normally during the summer months of the year.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI Exhibit No. 7
Company/ GEF - Direct
Witness: Thomas Lowery (TL-3
Date: 05/01/07

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
01-May-06 00:00:00	74.8	120	337	863	0	0	0
01-May-06 01:00:00	74.6	122	228	863	0	0	0
01-May-06 02:00:00	74.5	120	263	863	0	0	0
01-May-06 03:00:00	74.4	121	137	863	0	0	0
01-May-06 04:00:00	74.4	122	142	863	0	0	0
01-May-06 05:00:00	74.3	156	183	862	0	0	0
01-May-06 06:00:00	73.7	278	255	862	0	0	0
01-May-06 07:00:00	73.3	281	375	862	0	0	0
01-May-06 08:00:00	73.2	309	465	863	0	0	0
01-May-06 09:00:00	73.5	281	436	867	0	0	0
01-May-06 10:00:00	73.3	284	417	866	0	0	0
01-May-06 11:00:00	73.3	283	458	864	0	0	0
01-May-06 12:00:00	73.4	330	463	863	0	0	0
01-May-06 13:00:00	73.5	306	508	865	0	0	0
01-May-06 14:00:00	73.7	373	508	865	0	0	0
01-May-06 15:00:00	74.1	384	515	864	0	0	0
01-May-06 16:00:00	74.4	392	513	864	0	0	0
01-May-06 17:00:00	74.6	392	513	865	0	0	0
01-May-06 18:00:00	74.8	390	531	865	0	0	0
01-May-06 19:00:00	74.8	388	518	866	0	0	0
01-May-06 20:00:00	74.7	392	518	866	0	0	0
01-May-06 21:00:00	74.7	391	519	862	0	0	0
01-May-06 22:00:00	74.6	359	513	862	0	0	0
01-May-06 23:00:00	74.4	207	487	863	0	0	0
02-May-06 00:00:00	74.3	120	391	862	0	0	0
02-May-06 01:00:00	74.2	132	193	862	0	0	0
02-May-06 02:00:00	74.1	148	214	862	0	0	0
02-May-06 03:00:00	74.2	121	141	862	0	0	0
02-May-06 04:00:00	74.2	121	141	863	0	0	0
02-May-06 05:00:00	74.1	129	211	863	0	0	0
02-May-06 06:00:00	74.0	200	237	864	0	0	0
02-May-06 07:00:00	73.9	177	348	864	0	0	0
02-May-06 08:00:00	73.8	148	395	864	0	0	0
02-May-06 09:00:00	73.8	140	421	864	0	0	0
02-May-06 10:00:00	73.9	138	444	864	0	0	0
02-May-06 11:00:00	73.9	120	413	863	0	0	0
02-May-06 12:00:00	74.1	165	444	864	0	0	0
02-May-06 13:00:00	74.4	268	497	864	0	0	0
02-May-06 14:00:00	74.7	309	507	864	0	0	0
02-May-06 15:00:00	74.9	370	505	861	0	0	0
02-May-06 16:00:00	75.2	382	510	864	0	0	0
02-May-06 17:00:00	75.1	389	507	865	0	0	0
02-May-06 18:00:00	75.0	381	515	864	0	0	0
02-May-06 19:00:00	75.2	389	512	864	0	0	0
02-May-06 20:00:00	75.1	387	509	863	0	0	0
02-May-06 21:00:00	74.9	383	506	863	0	0	0
02-May-06 22:00:00	74.6	386	505	862	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
02-May-06 23:00:00	74.7	313	493	862	0	0	0
03-May-06 00:00:00	74.6	187	390	861	0	0	0
03-May-06 01:00:00	74.4	130	297	863	0	0	0
03-May-06 02:00:00	74.4	135	160	863	0	0	0
03-May-06 03:00:00	74.4	134	146	860	0	0	0
03-May-06 04:00:00	74.4	138	173	862	0	0	0
03-May-06 05:00:00	74.4	177	238	862	0	0	0
03-May-06 06:00:00	74.5	202	278	862	0	0	0
03-May-06 07:00:00	74.4	309	487	863	0	0	0
03-May-06 08:00:00	74.3	258	474	863	0	0	0
03-May-06 09:00:00	74.5	326	478	864	0	0	0
03-May-06 10:00:00	74.6	355	507	864	0	0	0
03-May-06 11:00:00	74.7	291	507	872	0	0	0
03-May-06 12:00:00	74.8	323	505	865	0	0	0
03-May-06 13:00:00	75.1	352	504	865	0	0	0
03-May-06 14:00:00	75.5	354	508	863	0	0	0
03-May-06 15:00:00	75.8	380	502	863	0	0	0
03-May-06 16:00:00	76.3	382	506	864	0	0	0
03-May-06 17:00:00	76.2	389	520	863	0	0	0
03-May-06 18:00:00	76.1	390	504	863	0	0	0
03-May-06 19:00:00	75.9	394	507	864	0	0	0
03-May-06 20:00:00	76.1	337	511	862	0	0	0
03-May-06 21:00:00	76.2	292	509	862	0	0	0
03-May-06 22:00:00	76.0	245	488	862	0	0	0
03-May-06 23:00:00	75.9	262	491	862	0	0	0
04-May-06 00:00:00	75.8	230	444	862	0	0	0
04-May-06 01:00:00	75.7	148	333	863	0	0	0
04-May-06 02:00:00	75.6	120	229	864	0	0	0
04-May-06 03:00:00	75.4	122	141	864	0	0	0
04-May-06 04:00:00	75.3	140	142	865	0	0	0
04-May-06 05:00:00	75.2	141	157	865	0	0	0
04-May-06 06:00:00	75.5	194	263	865	0	0	0
04-May-06 07:00:00	75.6	242	341	864	0	0	0
04-May-06 08:00:00	75.6	286	390	865	0	0	0
04-May-06 09:00:00	75.5	320	447	862	0	0	0
04-May-06 10:00:00	75.7	369	485	861	0	0	0
04-May-06 11:00:00	75.8	341	455	859	0	0	0
04-May-06 12:00:00	76.2	380	512	859	0	0	0
04-May-06 13:00:00	76.4	383	513	861	0	0	0
04-May-06 14:00:00	76.9	328	497	864	0	0	0
04-May-06 15:00:00	77.4	382	509	862	0	0	0
04-May-06 16:00:00	77.5	394	508	863	0	0	0
04-May-06 17:00:00	77.4	389	507	864	0	0	0
04-May-06 18:00:00	77.7	394	509	865	0	0	0
04-May-06 19:00:00	77.5	388	511	864	0	0	0
04-May-06 20:00:00	77.4	392	529	865	0	0	0
04-May-06 21:00:00	77.5	387	510	863	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
04-May-06 22:00:00	77.4	390	511	863	0	0	0
04-May-06 23:00:00	77.4	367	492	862	0	0	0
05-May-06 00:00:00	77.3	285	393	862	0	0	0
05-May-06 01:00:00	77.3	189	319	863	0	0	0
05-May-06 02:00:00	77.2	144	317	861	0	0	0
05-May-06 03:00:00	77.1	120	269	861	0	0	0
05-May-06 04:00:00	77.0	120	158	862	0	0	0
05-May-06 05:00:00	77.0	123	141	861	0	0	0
05-May-06 06:00:00	77.1	196	257	862	0	0	0
05-May-06 07:00:00	77.0	222	277	864	0	0	0
05-May-06 08:00:00	77.1	212	180	863	0	0	0
05-May-06 09:00:00	77.2	262	309	864	0	0	0
05-May-06 10:00:00	77.3	374	467	864	0	0	0
05-May-06 11:00:00	77.3	359	477	864	0	0	0
05-May-06 12:00:00	77.5	372	511	863	0	0	0
05-May-06 13:00:00	77.6	390	512	864	0	0	0
05-May-06 14:00:00	77.6	386	510	864	0	0	0
05-May-06 15:00:00	78.0	388	509	864	0	0	0
05-May-06 16:00:00	78.2	388	515	863	0	0	0
05-May-06 17:00:00	78.6	387	511	863	0	0	0
05-May-06 18:00:00	78.5	387	509	863	0	0	0
05-May-06 19:00:00	78.5	385	513	863	0	0	0
05-May-06 20:00:00	78.4	402	509	863	0	0	0
05-May-06 21:00:00	78.4	356	510	863	0	0	0
05-May-06 22:00:00	78.5	327	505	862	0	0	0
05-May-06 23:00:00	78.7	367	516	862	0	0	0
06-May-06 00:00:00	78.8	286	516	862	0	0	0
06-May-06 01:00:00	78.8	281	378	861	0	0	0
06-May-06 02:00:00	78.8	282	378	861	0	0	0
06-May-06 03:00:00	78.9	237	353	861	0	0	0
06-May-06 04:00:00	78.9	220	258	861	0	0	0
06-May-06 05:00:00	78.9	221	222	861	0	0	0
06-May-06 06:00:00	78.9	239	274	860	0	0	0
06-May-06 07:00:00	78.8	226	253	861	0	0	0
06-May-06 08:00:00	78.6	302	379	861	0	0	0
06-May-06 09:00:00	78.5	314	450	861	0	0	0
06-May-06 10:00:00	78.5	390	481	861	0	0	0
06-May-06 11:00:00	78.5	306	471	862	0	0	0
06-May-06 12:00:00	78.4	298	485	862	0	0	0
06-May-06 13:00:00	78.4	391	511	863	0	0	0
06-May-06 14:00:00	78.5	390	520	862	0	0	0
06-May-06 15:00:00	79.0	395	508	863	0	0	0
06-May-06 16:00:00	79.2	391	513	863	0	0	0
06-May-06 17:00:00	79.5	389	513	863	0	0	0
06-May-06 18:00:00	79.6	392	512	862	0	0	0
06-May-06 19:00:00	79.7	379	509	861	0	0	0
06-May-06 20:00:00	79.7	386	518	860	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
06-May-06 21:00:00	79.5	395	514	860	0	0	0
06-May-06 22:00:00	79.5	388	506	860	0	0	0
06-May-06 23:00:00	79.5	371	511	860	0	0	0
07-May-06 00:00:00	79.6	311	513	860	0	0	0
07-May-06 01:00:00	79.5	297	440	860	0	0	0
07-May-06 02:00:00	79.5	250	404	860	0	0	0
07-May-06 03:00:00	79.7	174	348	860	0	0	0
07-May-06 04:00:00	79.7	120	238	860	0	0	0
07-May-06 05:00:00	79.6	144	263	860	0	0	0
07-May-06 06:00:00	79.6	121	257	859	0	0	0
07-May-06 07:00:00	79.5	123	291	859	0	0	0
07-May-06 08:00:00	79.5	201	355	860	0	0	0
07-May-06 09:00:00	79.4	319	442	863	0	0	0
07-May-06 10:00:00	79.5	359	463	862	0	0	0
07-May-06 11:00:00	79.5	359	462	862	0	0	0
07-May-06 12:00:00	79.7	380	510	860	0	0	0
07-May-06 13:00:00	79.9	379	511	860	0	0	0
07-May-06 14:00:00	80.1	390	512	860	0	0	0
07-May-06 15:00:00	80.3	382	512	861	0	0	0
07-May-06 16:00:00	80.6	395	506	861	0	0	0
07-May-06 17:00:00	80.9	386	506	860	0	0	0
07-May-06 18:00:00	80.9	387	509	861	0	0	0
07-May-06 19:00:00	80.6	391	509	860	0	0	0
07-May-06 20:00:00	80.8	385	510	860	0	0	0
07-May-06 21:00:00	81.0	386	513	860	0	0	0
07-May-06 22:00:00	80.6	364	514	860	0	0	0
07-May-06 23:00:00	80.5	149	475	861	0	0	0
08-May-06 00:00:00	80.8	133	396	860	0	0	0
08-May-06 01:00:00	80.8	121	391	859	0	0	0
08-May-06 02:00:00	80.9	121	255	859	0	0	0
08-May-06 03:00:00	81.0	121	170	859	0	0	0
08-May-06 04:00:00	80.9	121	139	859	0	0	0
08-May-06 05:00:00	80.8	131	155	859	0	0	0
08-May-06 06:00:00	80.9	221	272	858	0	0	0
08-May-06 07:00:00	80.8	179	433	858	0	0	0
08-May-06 08:00:00	80.8	221	507	858	0	0	0
08-May-06 09:00:00	80.8	221	507	858	0	0	0
08-May-06 10:00:00	80.8	222	508	857	0	0	0
08-May-06 11:00:00	80.8	387	508	855	0	0	0
08-May-06 12:00:00	80.8	389	510	858	0	0	0
08-May-06 13:00:00	81.1	385	506	860	0	0	0
08-May-06 14:00:00	81.2	392	510	861	0	0	0
08-May-06 15:00:00	81.4	388	509	860	0	0	0
08-May-06 16:00:00	81.6	387	509	858	0	0	0
08-May-06 17:00:00	81.8	390	508	858	0	0	0
08-May-06 18:00:00	82.1	387	509	858	0	0	0
08-May-06 19:00:00	82.1	393	511	859	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
08-May-06 20:00:00	81.6	389	506	859	0	0	0
08-May-06 21:00:00	81.9	392	511	858	0	0	0
08-May-06 22:00:00	81.8	357	460	858	0	0	0
08-May-06 23:00:00	82.1	293	418	858	0	0	0
09-May-06 00:00:00	82.2	310	404	857	0	0	0
09-May-06 01:00:00	82.4	283	375	857	0	0	0
09-May-06 02:00:00	82.4	223	330	858	0	0	0
09-May-06 03:00:00	82.4	213	235	858	0	0	0
09-May-06 04:00:00	82.2	183	219	857	0	0	0
09-May-06 05:00:00	82.1	175	234	855	0	0	0
09-May-06 06:00:00	82.0	268	337	844	0	0	0
09-May-06 07:00:00	81.6	304	477	856	0	0	0
09-May-06 08:00:00	81.7	306	449	856	0	0	0
09-May-06 09:00:00	81.8	295	465	857	0	0	0
09-May-06 10:00:00	81.7	291	481	857	0	0	0
09-May-06 11:00:00	81.7	306	502	855	0	0	0
09-May-06 12:00:00	81.7	384	520	855	0	0	0
09-May-06 13:00:00	82.0	386	495	855	0	0	0
09-May-06 14:00:00	82.1	381	500	857	0	0	0
09-May-06 15:00:00	82.5	393	499	857	0	0	0
09-May-06 16:00:00	82.6	387	514	856	0	0	0
09-May-06 17:00:00	82.6	387	502	856	0	0	0
09-May-06 18:00:00	82.5	387	506	857	0	0	0
09-May-06 19:00:00	82.6	386	508	856	0	0	0
09-May-06 20:00:00	82.6	388	513	859	0	0	0
09-May-06 21:00:00	82.7	393	497	857	0	0	0
09-May-06 22:00:00	82.7	374	511	857	0	0	0
09-May-06 23:00:00	82.5	313	505	856	0	0	0
10-May-06 00:00:00	82.6	232	395	856	0	0	0
10-May-06 01:00:00	82.7	124	267	856	0	0	0
10-May-06 02:00:00	82.6	121	156	856	0	0	0
10-May-06 03:00:00	82.7	122	140	857	0	0	0
10-May-06 04:00:00	82.7	121	141	857	0	0	0
10-May-06 05:00:00	82.5	125	167	859	0	0	0
10-May-06 06:00:00	82.4	191	235	856	0	0	0
10-May-06 07:00:00	82.3	211	217	854	0	0	0
10-May-06 08:00:00	82.3	203	273	856	0	0	0
10-May-06 09:00:00	82.2	319	338	858	0	0	0
10-May-06 10:00:00	82.1	378	370	859	0	0	0
10-May-06 11:00:00	82.0	387	395	860	0	0	0
10-May-06 12:00:00	82.2	373	468	860	0	0	0
10-May-06 13:00:00	82.3	389	506	860	0	0	0
10-May-06 14:00:00	82.4	389	508	860	0	0	0
10-May-06 15:00:00	82.6	391	506	859	0	0	0
10-May-06 16:00:00	82.7	386	511	859	0	0	0
10-May-06 17:00:00	83.1	384	514	859	0	0	0
10-May-06 18:00:00	83.2	389	509	859	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
10-May-06 19:00:00	82.8	389	512	859	0	0	0
10-May-06 20:00:00	82.7	388	516	860	0	0	0
10-May-06 21:00:00	82.6	390	514	859	0	0	0
10-May-06 22:00:00	82.5	387	512	859	0	0	0
10-May-06 23:00:00	82.4	388	497	859	0	0	0
11-May-06 00:00:00	82.8	336	438	860	0	0	0
11-May-06 01:00:00	82.9	260	352	858	0	0	0
11-May-06 02:00:00	83.0	215	289	857	0	0	0
11-May-06 03:00:00	82.9	142	188	858	0	0	0
11-May-06 04:00:00	83.0	121	142	858	0	0	0
11-May-06 05:00:00	82.9	131	152	858	0	0	0
11-May-06 06:00:00	82.8	240	282	857	0	0	0
11-May-06 07:00:00	82.7	285	351	858	0	0	0
11-May-06 08:00:00	82.5	289	364	860	0	0	0
11-May-06 09:00:00	82.5	374	460	858	0	0	0
11-May-06 10:00:00	82.5	374	509	856	0	0	0
11-May-06 11:00:00	82.2	344	491	855	0	0	0
11-May-06 12:00:00	81.9	345	491	856	0	0	0
11-May-06 13:00:00	81.8	335	478	859	0	0	0
11-May-06 14:00:00	82.0	283	427	859	0	0	0
11-May-06 15:00:00	82.0	264	420	858	0	0	0
11-May-06 16:00:00	82.1	374	508	858	0	0	0
11-May-06 17:00:00	82.2	389	502	859	0	0	0
11-May-06 18:00:00	82.2	383	503	883	0	0	0
11-May-06 19:00:00	82.1	388	501	859	0	0	0
11-May-06 20:00:00	82.0	385	511	861	0	0	0
11-May-06 21:00:00	81.9	384	509	859	0	0	0
11-May-06 22:00:00	81.6	384	513	860	0	0	0
11-May-06 23:00:00	81.2	338	462	861	0	0	0
12-May-06 00:00:00	81.1	350	479	859	0	0	0
12-May-06 01:00:00	81.2	225	340	858	0	0	0
12-May-06 02:00:00	81.1	121	139	859	0	0	0
12-May-06 03:00:00	81.1	123	141	858	0	0	0
12-May-06 04:00:00	81.1	119	140	858	0	0	0
12-May-06 05:00:00	81.0	119	141	859	0	0	0
12-May-06 06:00:00	80.8	226	251	860	0	0	0
12-May-06 07:00:00	80.6	275	293	861	0	0	0
12-May-06 08:00:00	80.6	282	387	862	0	0	0
12-May-06 09:00:00	80.6	352	484	861	0	0	0
12-May-06 10:00:00	80.5	382	485	861	0	0	0
12-May-06 11:00:00	80.3	316	418	861	0	0	0
12-May-06 12:00:00	79.8	342	466	862	0	0	0
12-May-06 13:00:00	79.4	389	495	861	0	0	0
12-May-06 14:00:00	79.7	344	509	862	0	0	0
12-May-06 15:00:00	80.0	389	508	862	0	0	0
12-May-06 16:00:00	80.0	393	507	861	0	0	0
12-May-06 17:00:00	80.2	390	512	861	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
12-May-06 18:00:00	80.2	379	508	840	0	0	0
12-May-06 19:00:00	80.0	382	511	861	0	0	0
12-May-06 20:00:00	79.8	348	508	860	0	0	0
12-May-06 21:00:00	79.7	320	466	860	0	0	0
12-May-06 22:00:00	79.4	243	348	862	0	0	0
12-May-06 23:00:00	79.4	123	349	868	0	0	0
13-May-06 00:00:00	79.3	122	347	862	0	0	0
13-May-06 01:00:00	79.0	120	244	861	0	0	0
13-May-06 02:00:00	78.9	120	139	862	0	0	0
13-May-06 03:00:00	78.6	120	155	860	0	0	0
13-May-06 04:00:00	78.4	121	155	862	0	0	0
13-May-06 05:00:00	78.5	120	148	863	0	0	0
13-May-06 06:00:00	78.5	120	153	861	0	0	0
13-May-06 07:00:00	78.5	120	144	861	0	0	0
13-May-06 08:00:00	78.5	116	258	862	0	0	0
13-May-06 09:00:00	78.4	124	373	860	0	0	0
13-May-06 10:00:00	78.7	231	490	808	0	0	0
13-May-06 11:00:00	78.6	283	400	767	0	0	0
13-May-06 12:00:00	78.6	385	484	774	0	0	0
13-May-06 13:00:00	78.8	334	434	773	0	0	0
13-May-06 14:00:00	79.1	383	492	772	0	0	0
13-May-06 15:00:00	79.3	382	516	771	0	0	0
13-May-06 16:00:00	79.2	381	518	770	0	0	0
13-May-06 17:00:00	79.1	385	510	769	0	0	0
13-May-06 18:00:00	79.1	387	507	770	0	0	0
13-May-06 19:00:00	78.9	386	512	770	0	0	0
13-May-06 20:00:00	78.7	385	510	770	0	0	0
13-May-06 21:00:00	78.7	384	510	769	0	0	0
13-May-06 22:00:00	78.7	237	442	769	0	0	0
13-May-06 23:00:00	78.6	299	477	783	0	0	0
14-May-06 00:00:00	78.5	219	384	806	0	0	0
14-May-06 01:00:00	78.5	131	338	830	0	0	0
14-May-06 02:00:00	78.6	122	166	847	0	0	0
14-May-06 03:00:00	78.5	137	159	858	0	0	0
14-May-06 04:00:00	78.4	137	197	862	0	0	0
14-May-06 05:00:00	78.2	146	189	863	0	0	0
14-May-06 06:00:00	78.1	135	180	863	0	0	0
14-May-06 07:00:00	78.2	120	140	863	0	0	0
14-May-06 08:00:00	78.3	222	248	863	0	0	0
14-May-06 09:00:00	78.2	321	332	863	0	0	0
14-May-06 10:00:00	78.2	286	374	862	0	0	0
14-May-06 11:00:00	78.3	299	401	861	0	0	0
14-May-06 12:00:00	78.4	379	484	861	0	0	0
14-May-06 13:00:00	78.5	382	487	854	0	0	0
14-May-06 14:00:00	78.9	387	493	860	0	0	0
14-May-06 15:00:00	79.1	384	495	861	0	0	0
14-May-06 16:00:00	79.1	384	513	862	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
14-May-06 17:00:00	78.9	383	514	868	0	0	0
14-May-06 18:00:00	79.0	387	511	865	0	0	0
14-May-06 19:00:00	78.7	382	515	863	0	0	0
14-May-06 20:00:00	78.6	385	512	863	0	0	0
14-May-06 21:00:00	78.5	385	508	863	0	0	0
14-May-06 22:00:00	78.1	382	508	863	0	0	0
14-May-06 23:00:00	78.4	248	368	862	0	0	0
15-May-06 00:00:00	78.6	193	182	861	0	0	0
15-May-06 01:00:00	78.4	119	140	860	0	0	0
15-May-06 02:00:00	78.4	142	166	860	0	0	0
15-May-06 03:00:00	78.4	120	141	861	0	0	0
15-May-06 04:00:00	78.4	143	160	861	0	0	0
15-May-06 05:00:00	78.3	186	204	860	0	0	0
15-May-06 06:00:00	78.5	221	219	860	0	0	0
15-May-06 07:00:00	78.5	305	291	860	0	0	0
15-May-06 08:00:00	78.4	298	466	862	0	0	0
15-May-06 09:00:00	78.5	322	485	862	0	0	0
15-May-06 10:00:00	78.6	370	498	863	0	0	0
15-May-06 11:00:00	78.7	335	487	863	0	0	0
15-May-06 12:00:00	79.0	376	507	863	0	0	0
15-May-06 13:00:00	79.1	388	508	862	0	0	0
15-May-06 14:00:00	79.3	386	514	860	0	0	0
15-May-06 15:00:00	79.5	386	510	862	0	0	0
15-May-06 16:00:00	79.8	388	516	860	0	0	0
15-May-06 17:00:00	79.9	390	514	862	0	0	0
15-May-06 18:00:00	80.0	385	507	861	0	0	0
15-May-06 19:00:00	80.0	386	507	861	0	0	0
15-May-06 20:00:00	79.9	385	509	861	0	0	0
15-May-06 21:00:00	79.6	387	504	861	0	0	0
15-May-06 22:00:00	79.4	387	505	860	0	0	0
15-May-06 23:00:00	79.3	388	392	860	0	0	0
16-May-06 00:00:00	79.3	375	256	860	0	0	0
16-May-06 01:00:00	79.3	255	139	861	0	0	0
16-May-06 02:00:00	79.4	181	166	862	0	0	0
16-May-06 03:00:00	79.4	169	148	860	0	0	0
16-May-06 04:00:00	79.4	158	157	859	0	0	0
16-May-06 05:00:00	79.3	186	179	858	0	0	0
16-May-06 06:00:00	79.1	243	272	861	0	0	0
16-May-06 07:00:00	79.2	283	406	863	0	0	0
16-May-06 08:00:00	79.1	243	492	859	0	0	0
16-May-06 09:00:00	79.1	230	413	859	0	0	0
16-May-06 10:00:00	79.1	262	405	860	0	0	0
16-May-06 11:00:00	79.0	221	334	861	0	0	0
16-May-06 12:00:00	79.0	120	221	861	0	0	0
16-May-06 13:00:00	78.9	135	231	861	0	0	0
16-May-06 14:00:00	78.6	133	229	860	0	0	0
16-May-06 15:00:00	78.3	127	334	859	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
16-May-06 16:00:00	78.2	193	405	860	0	0	0
16-May-06 17:00:00	78.0	175	457	860	0	0	0
16-May-06 18:00:00	78.0	170	445	860	0	0	0
16-May-06 19:00:00	78.1	185	463	861	0	0	0
16-May-06 20:00:00	78.0	212	425	862	0	0	0
16-May-06 21:00:00	77.9	259	451	862	0	0	0
16-May-06 22:00:00	77.8	242	401	862	0	0	0
16-May-06 23:00:00	77.6	265	270	860	0	0	0
17-May-06 00:00:00	77.6	118	181	860	0	0	0
17-May-06 01:00:00	77.3	120	142	861	0	0	0
17-May-06 02:00:00	77.3	143	141	861	0	0	0
17-May-06 03:00:00	76.7	129	139	861	0	0	0
17-May-06 04:00:00	76.3	146	140	861	0	0	0
17-May-06 05:00:00	76.2	131	141	863	0	0	0
17-May-06 06:00:00	76.2	120	245	863	0	0	0
17-May-06 07:00:00	76.3	249	389	863	0	0	0
17-May-06 08:00:00	76.3	251	431	864	0	0	0
17-May-06 09:00:00	76.4	222	470	864	0	0	0
17-May-06 10:00:00	76.4	229	492	865	0	0	0
17-May-06 11:00:00	76.6	220	512	864	0	0	0
17-May-06 12:00:00	76.5	292	504	863	0	0	0
17-May-06 13:00:00	76.5	364	509	862	0	0	0
17-May-06 14:00:00	76.7	349	481	863	0	0	0
17-May-06 15:00:00	77.0	371	502	862	0	0	0
17-May-06 16:00:00	76.8	379	507	862	0	0	0
17-May-06 17:00:00	77.2	382	504	862	0	0	0
17-May-06 18:00:00	77.1	343	507	863	0	0	0
17-May-06 19:00:00	77.1	301	503	863	0	0	0
17-May-06 20:00:00	76.9	343	501	863	0	0	0
17-May-06 21:00:00	76.7	381	506	863	0	0	0
17-May-06 22:00:00	76.5	216	455	866	0	0	0
17-May-06 23:00:00	76.4	224	273	866	0	0	0
18-May-06 00:00:00	76.2	118	178	865	0	0	0
18-May-06 01:00:00	76.1	122	139	864	0	0	0
18-May-06 02:00:00	76.1	122	181	864	0	0	0
18-May-06 03:00:00	76.1	121	189	863	0	0	0
18-May-06 04:00:00	76.1	122	181	863	0	0	0
18-May-06 05:00:00	76.0	120	239	863	0	0	0
18-May-06 06:00:00	75.8	167	271	863	0	0	0
18-May-06 07:00:00	75.7	167	414	863	0	0	0
18-May-06 08:00:00	75.5	218	480	864	0	0	0
18-May-06 09:00:00	75.5	302	470	865	0	0	0
18-May-06 10:00:00	75.7	371	484	864	0	0	0
18-May-06 11:00:00	75.9	259	382	864	0	0	0
18-May-06 12:00:00	76.1	322	472	864	0	0	0
18-May-06 13:00:00	76.2	352	502	864	0	0	0
18-May-06 14:00:00	76.5	372	513	864	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
18-May-06 15:00:00	76.6	388	507	863	0	0	0
18-May-06 16:00:00	76.9	390	492	865	0	0	0
18-May-06 17:00:00	77.2	389	503	865	0	0	0
18-May-06 18:00:00	77.2	389	499	864	0	0	0
18-May-06 19:00:00	77.1	389	508	863	0	0	0
18-May-06 20:00:00	77.0	387	504	863	0	0	0
18-May-06 21:00:00	76.9	388	511	862	0	0	0
18-May-06 22:00:00	76.6	383	509	862	0	0	0
18-May-06 23:00:00	76.7	352	416	861	0	0	0
19-May-06 00:00:00	76.5	230	272	861	0	0	0
19-May-06 01:00:00	76.4	123	199	863	0	0	0
19-May-06 02:00:00	76.3	122	164	862	0	0	0
19-May-06 03:00:00	76.1	122	190	860	0	0	0
19-May-06 04:00:00	76.1	121	171	859	0	0	0
19-May-06 05:00:00	76.1	121	193	862	0	0	0
19-May-06 06:00:00	76.2	137	231	863	0	0	0
19-May-06 07:00:00	76.1	224	314	863	0	0	0
19-May-06 08:00:00	76.0	258	384	864	0	0	0
19-May-06 09:00:00	75.9	304	436	864	0	0	0
19-May-06 10:00:00	75.8	371	514	863	0	0	0
19-May-06 11:00:00	75.9	392	507	863	0	0	0
19-May-06 12:00:00	76.0	394	513	864	0	0	0
19-May-06 13:00:00	76.2	394	500	864	0	0	0
19-May-06 14:00:00	76.6	395	501	864	0	0	0
19-May-06 15:00:00	76.7	392	503	864	0	0	0
19-May-06 16:00:00	77.2	397	508	864	0	0	0
19-May-06 17:00:00	77.4	394	507	864	0	0	0
19-May-06 18:00:00	77.7	392	508	862	0	0	0
19-May-06 19:00:00	77.7	296	494	863	0	0	0
19-May-06 20:00:00	77.4	329	458	865	0	0	0
19-May-06 21:00:00	77.3	342	464	861	0	0	0
19-May-06 22:00:00	77.4	284	377	862	0	0	0
19-May-06 23:00:00	77.5	323	426	863	0	0	0
20-May-06 00:00:00	77.8	249	336	861	0	0	0
20-May-06 01:00:00	77.9	144	228	860	0	0	0
20-May-06 02:00:00	77.9	134	154	861	0	0	0
20-May-06 03:00:00	77.8	121	141	862	0	0	0
20-May-06 04:00:00	77.8	121	139	861	0	0	0
20-May-06 05:00:00	77.7	121	140	860	0	0	0
20-May-06 06:00:00	77.6	138	158	860	0	0	0
20-May-06 07:00:00	77.6	133	150	861	0	0	0
20-May-06 08:00:00	77.6	231	251	861	0	0	0
20-May-06 09:00:00	77.7	305	322	863	0	0	0
20-May-06 10:00:00	77.8	385	432	864	0	0	0
20-May-06 11:00:00	77.9	395	462	862	0	0	0
20-May-06 12:00:00	78.1	389	505	861	0	0	0
20-May-06 13:00:00	78.2	394	506	861	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
20-May-06 14:00:00	78.6	390	506	864	0	0	0
20-May-06 15:00:00	78.8	391	493	863	0	0	0
20-May-06 16:00:00	79.2	389	498	862	0	0	0
20-May-06 17:00:00	79.5	389	508	861	0	0	0
20-May-06 18:00:00	79.8	390	506	861	0	0	0
20-May-06 19:00:00	79.7	387	501	860	0	0	0
20-May-06 20:00:00	79.3	384	495	861	0	0	0
20-May-06 21:00:00	79.6	380	493	862	0	0	0
20-May-06 22:00:00	79.7	301	392	861	0	0	0
20-May-06 23:00:00	79.8	342	475	860	0	0	0
21-May-06 00:00:00	79.8	251	338	861	0	0	0
21-May-06 01:00:00	79.8	165	237	859	0	0	0
21-May-06 02:00:00	79.7	124	140	860	0	0	0
21-May-06 03:00:00	79.6	122	141	860	0	0	0
21-May-06 04:00:00	79.5	120	140	860	0	0	0
21-May-06 05:00:00	79.5	121	140	861	0	0	0
21-May-06 06:00:00	79.1	121	140	861	0	0	0
21-May-06 07:00:00	78.9	134	163	861	0	0	0
21-May-06 08:00:00	78.8	220	238	861	0	0	0
21-May-06 09:00:00	78.9	320	323	861	0	0	0
21-May-06 10:00:00	79.3	365	441	860	0	0	0
21-May-06 11:00:00	79.3	377	468	860	0	0	0
21-May-06 12:00:00	79.7	388	504	860	0	0	0
21-May-06 13:00:00	80.0	389	504	861	0	0	0
21-May-06 14:00:00	80.3	385	503	861	0	0	0
21-May-06 15:00:00	80.6	383	504	861	0	0	0
21-May-06 16:00:00	80.8	383	502	861	0	0	0
21-May-06 17:00:00	81.3	384	503	860	0	0	0
21-May-06 18:00:00	81.1	386	503	861	0	0	0
21-May-06 19:00:00	80.9	382	502	860	0	0	0
21-May-06 20:00:00	80.6	382	502	860	0	0	0
21-May-06 21:00:00	80.5	388	504	861	0	0	0
21-May-06 22:00:00	80.6	284	504	862	0	0	0
21-May-06 23:00:00	80.8	262	431	861	0	0	0
22-May-06 00:00:00	80.9	198	344	860	0	0	0
22-May-06 01:00:00	80.9	120	173	859	0	0	0
22-May-06 02:00:00	80.8	121	141	857	0	0	0
22-May-06 03:00:00	80.8	121	141	857	0	0	0
22-May-06 04:00:00	80.7	120	140	856	0	0	0
22-May-06 05:00:00	80.7	144	167	861	0	0	0
22-May-06 06:00:00	80.9	216	284	861	0	0	0
22-May-06 07:00:00	80.8	222	381	862	0	0	0
22-May-06 08:00:00	80.3	316	476	861	0	0	0
22-May-06 09:00:00	80.1	383	503	861	0	0	0
22-May-06 10:00:00	80.1	385	510	862	0	0	0
22-May-06 11:00:00	80.1	315	505	860	0	0	0
22-May-06 12:00:00	80.3	368	511	861	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
22-May-06 13:00:00	80.4	375	507	862	0	0	0
22-May-06 14:00:00	80.6	372	499	862	0	0	0
22-May-06 15:00:00	80.7	382	503	862	0	0	0
22-May-06 16:00:00	80.9	383	496	861	0	0	0
22-May-06 17:00:00	81.3	391	500	860	0	0	0
22-May-06 18:00:00	81.2	383	506	861	0	0	0
22-May-06 19:00:00	81.0	363	508	859	0	0	0
22-May-06 20:00:00	80.9	384	505	860	0	0	0
22-May-06 21:00:00	80.8	364	505	861	0	0	0
22-May-06 22:00:00	80.7	311	502	860	0	0	0
22-May-06 23:00:00	80.5	282	368	860	0	0	0
23-May-06 00:00:00	80.9	238	234	859	0	0	0
23-May-06 01:00:00	81.1	294	295	859	0	0	0
23-May-06 02:00:00	81.3	197	154	859	0	0	0
23-May-06 03:00:00	81.2	120	225	859	0	0	0
23-May-06 04:00:00	81.0	121	238	859	0	0	0
23-May-06 05:00:00	81.1	130	272	859	0	0	0
23-May-06 06:00:00	81.0	281	298	857	0	0	0
23-May-06 07:00:00	81.0	347	303	858	0	0	0
23-May-06 08:00:00	80.8	294	376	858	0	0	0
23-May-06 09:00:00	80.7	387	409	859	0	0	0
23-May-06 10:00:00	80.6	391	413	861	0	0	0
23-May-06 11:00:00	80.6	369	417	860	0	0	0
23-May-06 12:00:00	80.6	384	499	859	0	0	0
23-May-06 13:00:00	80.5	389	512	860	0	0	0
23-May-06 14:00:00	80.5	387	513	860	0	0	0
23-May-06 15:00:00	80.5	389	514	859	0	0	0
23-May-06 16:00:00	80.6	385	511	861	0	0	0
23-May-06 17:00:00	80.7	388	510	860	0	0	0
23-May-06 18:00:00	80.7	391	507	860	0	0	0
23-May-06 19:00:00	80.7	387	504	860	0	0	0
23-May-06 20:00:00	80.6	385	503	861	0	0	0
23-May-06 21:00:00	80.6	386	503	862	0	0	0
23-May-06 22:00:00	80.5	383	506	862	0	0	0
23-May-06 23:00:00	80.5	305	402	862	0	0	0
24-May-06 00:00:00	80.4	210	374	861	0	0	0
24-May-06 01:00:00	80.4	123	253	860	0	0	0
24-May-06 02:00:00	80.3	132	153	860	0	0	0
24-May-06 03:00:00	80.3	122	141	860	0	0	0
24-May-06 04:00:00	80.2	121	142	861	0	0	0
24-May-06 05:00:00	80.1	152	171	861	0	0	0
24-May-06 06:00:00	80.1	200	267	859	0	0	0
24-May-06 07:00:00	80.0	198	362	861	0	0	0
24-May-06 08:00:00	79.9	228	447	864	0	0	0
24-May-06 09:00:00	79.9	222	411	863	0	0	0
24-May-06 10:00:00	80.1	283	421	861	0	0	0
24-May-06 11:00:00	80.0	295	506	862	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
24-May-06 12:00:00	80.2	383	509	861	0	0	0
24-May-06 13:00:00	80.4	390	509	861	0	0	0
24-May-06 14:00:00	80.4	391	513	861	0	0	0
24-May-06 15:00:00	80.6	390	507	858	0	0	0
24-May-06 16:00:00	80.8	390	508	856	0	0	0
24-May-06 17:00:00	81.3	389	506	860	0	0	0
24-May-06 18:00:00	81.5	389	511	861	0	0	0
24-May-06 19:00:00	81.5	390	514	860	0	0	0
24-May-06 20:00:00	81.1	388	508	860	0	0	0
24-May-06 21:00:00	80.6	382	511	860	0	0	0
24-May-06 22:00:00	80.6	390	506	859	0	0	0
24-May-06 23:00:00	80.5	255	511	860	0	0	0
25-May-06 00:00:00	80.7	253	508	845	0	0	0
25-May-06 01:00:00	81.1	159	389	861	0	0	0
25-May-06 02:00:00	81.2	122	274	860	0	0	0
25-May-06 03:00:00	81.3	122	139	859	0	0	0
25-May-06 04:00:00	81.2	120	141	859	0	0	0
25-May-06 05:00:00	81.4	122	141	858	0	0	0
25-May-06 06:00:00	81.3	183	238	858	0	0	0
25-May-06 07:00:00	81.4	266	347	858	0	0	0
25-May-06 08:00:00	81.3	339	456	858	0	0	0
25-May-06 09:00:00	81.4	367	501	860	0	0	0
25-May-06 10:00:00	81.3	385	513	860	0	0	0
25-May-06 11:00:00	81.3	388	512	861	0	0	0
25-May-06 12:00:00	81.5	388	505	861	0	0	0
25-May-06 13:00:00	81.6	392	516	861	0	0	0
25-May-06 14:00:00	81.9	379	510	860	0	0	0
25-May-06 15:00:00	82.0	394	508	860	0	0	0
25-May-06 16:00:00	82.4	393	508	860	0	0	0
25-May-06 17:00:00	82.2	393	507	860	0	0	0
25-May-06 18:00:00	81.9	393	508	859	0	0	0
25-May-06 19:00:00	82.1	389	503	858	0	0	0
25-May-06 20:00:00	82.0	392	509	858	0	0	0
25-May-06 21:00:00	82.2	392	509	876	0	0	0
25-May-06 22:00:00	82.3	384	510	859	0	0	0
25-May-06 23:00:00	82.1	308	510	860	0	0	0
26-May-06 00:00:00	82.5	302	294	859	0	0	0
26-May-06 01:00:00	82.9	291	144	860	0	0	0
26-May-06 02:00:00	83.2	227	141	859	0	0	0
26-May-06 03:00:00	83.1	150	141	858	0	0	0
26-May-06 04:00:00	82.9	124	140	857	0	0	0
26-May-06 05:00:00	82.8	135	140	857	0	0	0
26-May-06 06:00:00	82.9	292	140	857	0	0	0
26-May-06 07:00:00	82.9	275	138	858	0	0	0
26-May-06 08:00:00	83.0	393	141	859	0	0	0
26-May-06 09:00:00	83.0	388	152	859	0	0	0
26-May-06 10:00:00	83.0	386	428	840	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
26-May-06 11:00:00	82.9	387	485	859	0	0	0
26-May-06 12:00:00	82.9	388	503	859	0	0	0
26-May-06 13:00:00	83.2	379	507	859	0	0	0
26-May-06 14:00:00	83.2	389	513	859	0	0	0
26-May-06 15:00:00	83.2	388	508	859	0	0	0
26-May-06 16:00:00	83.4	383	510	859	0	0	0
26-May-06 17:00:00	83.5	384	503	858	0	0	0
26-May-06 18:00:00	83.4	385	503	858	0	0	0
26-May-06 19:00:00	83.8	335	449	858	0	0	0
26-May-06 20:00:00	83.6	335	449	857	0	0	0
26-May-06 21:00:00	83.4	358	473	857	0	0	0
26-May-06 22:00:00	83.4	358	475	858	0	0	0
26-May-06 23:00:00	83.1	330	449	858	0	0	0
27-May-06 00:00:00	83.3	285	379	857	0	0	0
27-May-06 01:00:00	83.6	244	349	855	0	0	0
27-May-06 02:00:00	83.9	129	181	854	0	0	0
27-May-06 03:00:00	83.9	149	201	854	0	0	0
27-May-06 04:00:00	84.0	121	140	856	0	0	0
27-May-06 05:00:00	83.9	125	146	858	0	0	0
27-May-06 06:00:00	83.8	135	158	856	0	0	0
27-May-06 07:00:00	83.8	143	161	854	0	0	0
27-May-06 08:00:00	83.8	218	280	856	0	0	0
27-May-06 09:00:00	83.7	263	336	858	0	0	0
27-May-06 10:00:00	83.8	370	466	858	0	0	0
27-May-06 11:00:00	83.9	382	484	860	0	0	0
27-May-06 12:00:00	83.8	389	505	856	0	0	0
27-May-06 13:00:00	83.8	391	503	857	0	0	0
27-May-06 14:00:00	84.1	389	509	857	0	0	0
27-May-06 15:00:00	84.2	392	511	857	0	0	0
27-May-06 16:00:00	84.3	390	507	856	0	0	0
27-May-06 17:00:00	84.5	387	504	856	0	0	0
27-May-06 18:00:00	84.6	379	503	856	0	0	0
27-May-06 19:00:00	84.7	379	507	856	0	0	0
27-May-06 20:00:00	84.6	378	508	856	0	0	0
27-May-06 21:00:00	84.3	378	509	856	0	0	0
27-May-06 22:00:00	84.0	384	507	856	0	0	0
27-May-06 23:00:00	83.9	331	507	857	0	0	0
28-May-06 00:00:00	83.9	282	466	856	0	0	0
28-May-06 01:00:00	84.1	226	379	855	0	0	0
28-May-06 02:00:00	84.6	168	275	853	0	0	0
28-May-06 03:00:00	84.6	122	145	853	0	0	0
28-May-06 04:00:00	84.6	121	140	854	0	0	0
28-May-06 05:00:00	84.6	121	140	855	0	0	0
28-May-06 06:00:00	84.5	125	145	856	0	0	0
28-May-06 07:00:00	84.5	121	140	857	0	0	0
28-May-06 08:00:00	84.4	212	239	856	0	0	0
28-May-06 09:00:00	84.3	323	372	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
28-May-06 10:00:00	84.3	312	519	856	0	0	0
28-May-06 11:00:00	84.5	284	508	856	0	0	0
28-May-06 12:00:00	84.5	382	515	856	0	0	0
28-May-06 13:00:00	84.7	365	507	855	0	0	0
28-May-06 14:00:00	85.2	379	511	855	0	0	0
28-May-06 15:00:00	85.2	376	506	855	0	0	0
28-May-06 16:00:00	85.2	380	510	856	0	0	0
28-May-06 17:00:00	85.6	391	508	856	0	0	0
28-May-06 18:00:00	85.4	383	510	856	0	0	0
28-May-06 19:00:00	85.3	388	508	856	0	0	0
28-May-06 20:00:00	84.8	388	504	857	0	0	0
28-May-06 21:00:00	84.7	385	506	855	0	0	0
28-May-06 22:00:00	84.5	386	507	854	0	0	0
28-May-06 23:00:00	84.4	344	470	855	0	0	0
29-May-06 00:00:00	84.4	289	383	855	0	0	0
29-May-06 01:00:00	84.4	225	292	854	0	0	0
29-May-06 02:00:00	84.5	214	207	855	0	0	0
29-May-06 03:00:00	84.5	132	145	855	0	0	0
29-May-06 04:00:00	84.6	121	141	855	0	0	0
29-May-06 05:00:00	84.8	121	141	855	0	0	0
29-May-06 06:00:00	84.9	127	139	855	0	0	0
29-May-06 07:00:00	84.9	121	139	856	0	0	0
29-May-06 08:00:00	84.8	122	145	857	0	0	0
29-May-06 09:00:00	84.8	225	393	858	0	0	0
29-May-06 10:00:00	84.8	370	471	856	0	0	0
29-May-06 11:00:00	84.6	388	507	855	0	0	0
29-May-06 12:00:00	84.7	385	498	856	0	0	0
29-May-06 13:00:00	84.8	388	502	857	0	0	0
29-May-06 14:00:00	85.1	386	500	856	0	0	0
29-May-06 15:00:00	85.2	390	506	856	0	0	0
29-May-06 16:00:00	85.3	390	504	856	0	0	0
29-May-06 17:00:00	85.3	388	507	857	0	0	0
29-May-06 18:00:00	85.4	391	513	857	0	0	0
29-May-06 19:00:00	85.2	389	508	854	0	0	0
29-May-06 20:00:00	85.0	388	504	856	0	0	0
29-May-06 21:00:00	84.8	391	511	856	0	0	0
29-May-06 22:00:00	84.7	389	511	856	0	0	0
29-May-06 23:00:00	84.6	388	507	856	0	0	0
30-May-06 00:00:00	84.6	208	450	855	0	0	0
30-May-06 01:00:00	84.5	121	321	855	0	0	0
30-May-06 02:00:00	84.4	123	233	855	0	0	0
30-May-06 03:00:00	84.2	122	157	855	0	0	0
30-May-06 04:00:00	84.1	122	139	855	0	0	0
30-May-06 05:00:00	84.1	122	141	855	0	0	0
30-May-06 06:00:00	84.0	167	194	856	0	0	0
30-May-06 07:00:00	84.0	213	249	857	0	0	0
30-May-06 08:00:00	84.0	232	300	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
30-May-06 09:00:00	84.1	332	444	855	0	0	0
30-May-06 10:00:00	84.2	384	500	854	0	0	0
30-May-06 11:00:00	84.2	384	509	855	0	0	0
30-May-06 12:00:00	84.1	393	501	858	0	0	0
30-May-06 13:00:00	84.0	390	502	857	0	0	0
30-May-06 14:00:00	84.1	389	506	857	0	0	0
30-May-06 15:00:00	84.3	390	504	857	0	0	0
30-May-06 16:00:00	84.6	389	501	856	0	0	0
30-May-06 17:00:00	84.8	394	503	857	0	0	0
30-May-06 18:00:00	84.4	391	504	856	0	0	0
30-May-06 19:00:00	84.4	395	506	856	0	0	0
30-May-06 20:00:00	84.5	387	506	857	0	0	0
30-May-06 21:00:00	84.4	389	505	856	0	0	0
30-May-06 22:00:00	84.2	391	508	856	0	0	0
30-May-06 23:00:00	84.1	285	405	855	0	0	0
31-May-06 00:00:00	83.9	204	299	855	0	0	0
31-May-06 01:00:00	83.8	202	301	856	0	0	0
31-May-06 02:00:00	83.5	136	230	855	0	0	0
31-May-06 03:00:00	83.6	120	144	855	0	0	0
31-May-06 04:00:00	83.5	121	146	855	0	0	0
31-May-06 05:00:00	83.6	121	146	855	0	0	0
31-May-06 06:00:00	83.7	125	194	855	0	0	0
31-May-06 07:00:00	83.7	135	277	856	0	0	0
31-May-06 08:00:00	83.7	225	362	858	0	0	0
31-May-06 09:00:00	83.8	322	474	857	0	0	0
31-May-06 10:00:00	83.9	314	494	856	0	0	0
31-May-06 11:00:00	84.0	388	507	855	0	0	0
31-May-06 12:00:00	83.9	385	501	855	0	0	0
31-May-06 13:00:00	83.9	387	509	856	0	0	0
31-May-06 14:00:00	83.9	386	502	856	0	0	0
31-May-06 15:00:00	83.9	390	503	856	0	0	0
31-May-06 16:00:00	83.9	390	513	853	0	0	0
31-May-06 17:00:00	84.4	394	514	854	0	0	0
31-May-06 18:00:00	84.4	395	504	856	0	0	0
31-May-06 19:00:00	84.2	391	507	857	0	0	0
31-May-06 20:00:00	84.3	390	509	855	0	0	0
31-May-06 21:00:00	84.2	388	497	857	0	0	0
31-May-06 22:00:00	84.0	382	499	856	0	0	0
31-May-06 23:00:00	84.0	259	358	857	0	0	0
01-Jun-06 00:00:00	84.0	203	298	855	0	0	0
01-Jun-06 01:00:00	83.9	200	299	856	0	0	0
01-Jun-06 02:00:00	83.9	119	254	856	0	0	0
01-Jun-06 03:00:00	83.7	122	207	855	0	0	0
01-Jun-06 04:00:00	83.6	121	138	855	0	0	0
01-Jun-06 05:00:00	83.7	120	141	856	0	0	0
01-Jun-06 06:00:00	83.6	136	192	857	0	0	0
01-Jun-06 07:00:00	83.5	140	204	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
01-Jun-06 08:00:00	83.4	199	261	857	0	0	0
01-Jun-06 09:00:00	83.5	286	367	856	0	0	0
01-Jun-06 10:00:00	83.6	296	491	855	0	0	0
01-Jun-06 11:00:00	83.5	384	491	856	0	0	0
01-Jun-06 12:00:00	83.5	376	503	857	0	0	0
01-Jun-06 13:00:00	83.6	384	496	857	0	0	0
01-Jun-06 14:00:00	83.7	382	500	858	0	0	0
01-Jun-06 15:00:00	83.8	384	492	857	0	0	0
01-Jun-06 16:00:00	83.9	386	492	856	0	0	0
01-Jun-06 17:00:00	84.0	386	496	856	0	0	0
01-Jun-06 18:00:00	84.0	384	500	857	0	0	0
01-Jun-06 19:00:00	84.0	384	499	857	0	0	0
01-Jun-06 20:00:00	83.9	385	506	857	0	0	0
01-Jun-06 21:00:00	83.9	384	503	857	0	0	0
01-Jun-06 22:00:00	83.8	383	500	857	0	0	0
01-Jun-06 23:00:00	83.8	266	400	857	0	0	0
02-Jun-06 00:00:00	83.8	150	388	857	0	0	0
02-Jun-06 01:00:00	83.7	120	325	856	0	0	0
02-Jun-06 02:00:00	83.6	121	145	856	0	0	0
02-Jun-06 03:00:00	83.7	121	141	857	0	0	0
02-Jun-06 04:00:00	83.4	121	185	857	0	0	0
02-Jun-06 05:00:00	83.2	122	164	857	0	0	0
02-Jun-06 06:00:00	83.2	149	239	858	0	0	0
02-Jun-06 07:00:00	83.3	188	281	857	0	0	0
02-Jun-06 08:00:00	83.2	196	380	856	0	0	0
02-Jun-06 09:00:00	83.3	275	492	855	0	0	0
02-Jun-06 10:00:00	83.4	375	499	854	0	0	0
02-Jun-06 11:00:00	83.5	384	500	856	0	0	0
02-Jun-06 12:00:00	83.7	381	502	856	0	0	0
02-Jun-06 13:00:00	83.8	383	503	857	0	0	0
02-Jun-06 14:00:00	84.1	384	501	858	0	0	0
02-Jun-06 15:00:00	84.5	384	500	856	0	0	0
02-Jun-06 16:00:00	84.9	384	498	857	0	0	0
02-Jun-06 17:00:00	84.9	385	512	856	0	0	0
02-Jun-06 18:00:00	84.7	385	499	856	0	0	0
02-Jun-06 19:00:00	84.2	384	507	856	0	0	0
02-Jun-06 20:00:00	84.3	384	506	856	0	0	0
02-Jun-06 21:00:00	84.2	383	511	856	0	0	0
02-Jun-06 22:00:00	84.2	383	503	856	0	0	0
02-Jun-06 23:00:00	84.1	377	475	856	0	0	0
03-Jun-06 00:00:00	84.0	379	480	856	0	0	0
03-Jun-06 01:00:00	83.7	315	430	856	0	0	0
03-Jun-06 02:00:00	83.7	238	335	856	0	0	0
03-Jun-06 03:00:00	83.5	167	215	855	0	0	0
03-Jun-06 04:00:00	83.5	129	146	856	0	0	0
03-Jun-06 05:00:00	83.6	126	141	855	0	0	0
03-Jun-06 06:00:00	83.7	136	150	855	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
03-Jun-06 07:00:00	83.8	140	154	857	0	0	0
03-Jun-06 08:00:00	83.8	220	246	855	0	0	0
03-Jun-06 09:00:00	84.0	319	354	854	0	0	0
03-Jun-06 10:00:00	84.0	378	500	855	0	0	0
03-Jun-06 11:00:00	84.2	382	504	855	0	0	0
03-Jun-06 12:00:00	84.4	390	504	855	0	0	0
03-Jun-06 13:00:00	84.4	384	504	856	0	0	0
03-Jun-06 14:00:00	84.4	389	503	857	0	0	0
03-Jun-06 15:00:00	84.2	388	510	857	0	0	0
03-Jun-06 16:00:00	84.3	387	513	856	0	0	0
03-Jun-06 17:00:00	84.4	389	503	856	0	0	0
03-Jun-06 18:00:00	84.2	389	510	856	0	0	0
03-Jun-06 19:00:00	84.2	389	513	857	0	0	0
03-Jun-06 20:00:00	84.2	386	502	857	0	0	0
03-Jun-06 21:00:00	84.3	389	504	857	0	0	0
03-Jun-06 22:00:00	84.2	390	510	855	0	0	0
03-Jun-06 23:00:00	84.0	349	396	856	0	0	0
04-Jun-06 00:00:00	83.9	361	457	857	0	0	0
04-Jun-06 01:00:00	83.7	304	402	856	0	0	0
04-Jun-06 02:00:00	83.7	243	337	856	0	0	0
04-Jun-06 03:00:00	83.6	210	216	857	0	0	0
04-Jun-06 04:00:00	83.7	178	190	857	0	0	0
04-Jun-06 05:00:00	83.6	144	158	856	0	0	0
04-Jun-06 06:00:00	83.1	157	175	856	0	0	0
04-Jun-06 07:00:00	82.9	160	174	857	0	0	0
04-Jun-06 08:00:00	82.9	263	300	856	0	0	0
04-Jun-06 09:00:00	82.8	322	375	854	0	0	0
04-Jun-06 10:00:00	83.0	356	481	857	0	0	0
04-Jun-06 11:00:00	83.1	391	508	858	0	0	0
04-Jun-06 12:00:00	83.4	387	502	859	0	0	0
04-Jun-06 13:00:00	83.7	389	502	858	0	0	0
04-Jun-06 14:00:00	84.1	383	505	857	0	0	0
04-Jun-06 15:00:00	84.5	383	502	857	0	0	0
04-Jun-06 16:00:00	84.7	384	504	856	0	0	0
04-Jun-06 17:00:00	84.9	382	502	857	0	0	0
04-Jun-06 18:00:00	85.0	382	507	857	0	0	0
04-Jun-06 19:00:00	85.3	384	501	856	0	0	0
04-Jun-06 20:00:00	85.1	386	509	855	0	0	0
04-Jun-06 21:00:00	84.9	384	498	855	0	0	0
04-Jun-06 22:00:00	84.7	381	505	856	0	0	0
04-Jun-06 23:00:00	84.6	332	296	857	0	0	0
05-Jun-06 00:00:00	84.5	306	255	856	0	0	0
05-Jun-06 01:00:00	84.3	217	238	856	0	0	0
05-Jun-06 02:00:00	84.1	125	220	855	0	0	0
05-Jun-06 03:00:00	83.9	121	220	855	0	0	0
05-Jun-06 04:00:00	83.7	121	140	855	0	0	0
05-Jun-06 05:00:00	83.6	121	140	855	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
05-Jun-06 06:00:00	83.4	238	245	856	0	0	0
05-Jun-06 07:00:00	83.4	311	287	858	0	0	0
05-Jun-06 08:00:00	83.4	380	320	858	0	0	0
05-Jun-06 09:00:00	83.5	373	279	856	0	0	0
05-Jun-06 10:00:00	83.5	382	253	855	0	0	0
05-Jun-06 11:00:00	83.6	381	255	856	0	0	0
05-Jun-06 12:00:00	83.8	379	307	857	0	0	0
05-Jun-06 13:00:00	84.2	379	275	857	0	0	0
05-Jun-06 14:00:00	84.6	379	361	857	0	0	0
05-Jun-06 15:00:00	85.0	384	482	857	0	0	0
05-Jun-06 16:00:00	85.3	385	500	856	0	0	0
05-Jun-06 17:00:00	85.5	381	502	854	0	0	0
05-Jun-06 18:00:00	85.1	386	490	856	0	0	0
05-Jun-06 19:00:00	85.0	384	496	855	0	0	0
05-Jun-06 20:00:00	85.1	388	506	855	0	0	0
05-Jun-06 21:00:00	85.3	379	499	855	0	0	0
05-Jun-06 22:00:00	85.2	385	500	855	0	0	0
05-Jun-06 23:00:00	85.1	383	454	855	0	0	0
06-Jun-06 00:00:00	85.1	377	296	855	0	0	0
06-Jun-06 01:00:00	84.8	292	281	855	0	0	0
06-Jun-06 02:00:00	84.7	215	195	855	0	0	0
06-Jun-06 03:00:00	84.6	156	141	855	0	0	0
06-Jun-06 04:00:00	84.4	122	142	853	0	0	0
06-Jun-06 05:00:00	84.3	151	171	857	0	0	0
06-Jun-06 06:00:00	84.3	208	232	856	0	0	0
06-Jun-06 07:00:00	84.2	219	219	858	0	0	0
06-Jun-06 08:00:00	84.2	290	290	859	0	0	0
06-Jun-06 09:00:00	84.1	321	295	855	0	0	0
06-Jun-06 10:00:00	84.0	392	297	851	0	0	0
06-Jun-06 11:00:00	84.1	392	297	851	0	0	0
06-Jun-06 12:00:00	84.3	390	295	856	0	0	0
06-Jun-06 13:00:00	84.4	394	301	855	0	0	0
06-Jun-06 14:00:00	84.5	387	317	858	0	0	0
06-Jun-06 15:00:00	84.8	390	454	858	0	0	0
06-Jun-06 16:00:00	85.0	389	500	856	0	0	0
06-Jun-06 17:00:00	85.1	391	500	855	0	0	0
06-Jun-06 18:00:00	85.2	390	509	855	0	0	0
06-Jun-06 19:00:00	85.1	390	496	857	0	0	0
06-Jun-06 20:00:00	85.2	391	500	856	0	0	0
06-Jun-06 21:00:00	84.8	388	508	854	0	0	0
06-Jun-06 22:00:00	84.9	385	521	854	0	0	0
06-Jun-06 23:00:00	84.8	380	502	855	0	0	0
07-Jun-06 00:00:00	84.6	200	500	856	0	0	0
07-Jun-06 01:00:00	84.4	203	448	857	0	0	0
07-Jun-06 02:00:00	84.3	142	366	856	0	0	0
07-Jun-06 03:00:00	84.1	126	312	855	0	0	0
07-Jun-06 04:00:00	84.1	125	278	854	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
07-Jun-06 05:00:00	84.0	127	239	855	0	0	0
07-Jun-06 06:00:00	83.9	127	231	854	0	0	0
07-Jun-06 07:00:00	83.7	143	244	856	0	0	0
07-Jun-06 08:00:00	83.5	237	400	857	0	0	0
07-Jun-06 09:00:00	83.4	332	490	857	0	0	0
07-Jun-06 10:00:00	83.3	379	493	858	0	0	0
07-Jun-06 11:00:00	83.3	382	497	858	0	0	0
07-Jun-06 12:00:00	83.2	381	495	857	0	0	0
07-Jun-06 13:00:00	83.3	380	499	857	0	0	0
07-Jun-06 14:00:00	83.4	385	494	857	0	0	0
07-Jun-06 15:00:00	83.7	381	498	857	0	0	0
07-Jun-06 16:00:00	83.9	385	492	857	0	0	0
07-Jun-06 17:00:00	84.2	387	495	857	0	0	0
07-Jun-06 18:00:00	84.5	383	490	856	0	0	0
07-Jun-06 19:00:00	84.7	379	494	858	0	0	0
07-Jun-06 20:00:00	84.6	385	497	858	0	0	0
07-Jun-06 21:00:00	84.4	382	496	856	0	0	0
07-Jun-06 22:00:00	84.4	382	496	855	0	0	0
07-Jun-06 23:00:00	84.5	315	494	854	0	0	0
08-Jun-06 00:00:00	84.3	203	494	855	0	0	0
08-Jun-06 01:00:00	84.2	258	199	856	0	0	0
08-Jun-06 02:00:00	84.1	293	201	855	0	0	0
08-Jun-06 03:00:00	84.0	279	201	855	0	0	0
08-Jun-06 04:00:00	84.0	268	200	855	0	0	0
08-Jun-06 05:00:00	83.9	202	199	855	0	0	0
08-Jun-06 06:00:00	83.9	226	200	857	0	0	0
08-Jun-06 07:00:00	83.9	221	200	856	0	0	0
08-Jun-06 08:00:00	83.7	298	200	857	0	0	0
08-Jun-06 09:00:00	83.8	384	199	857	0	0	0
08-Jun-06 10:00:00	83.9	388	200	857	0	0	0
08-Jun-06 11:00:00	83.9	388	200	857	0	0	0
08-Jun-06 12:00:00	84.2	390	200	857	0	0	0
08-Jun-06 13:00:00	84.1	389	199	857	0	0	0
08-Jun-06 14:00:00	84.0	394	200	857	0	0	0
08-Jun-06 15:00:00	84.0	384	200	856	0	0	0
08-Jun-06 16:00:00	84.1	388	199	855	0	0	0
08-Jun-06 17:00:00	84.3	389	200	855	0	0	0
08-Jun-06 18:00:00	84.4	388	201	856	0	0	0
08-Jun-06 19:00:00	84.6	388	198	858	0	0	0
08-Jun-06 20:00:00	84.6	389	199	859	0	0	0
08-Jun-06 21:00:00	84.6	387	199	855	0	0	0
08-Jun-06 22:00:00	84.4	389	199	856	0	0	0
08-Jun-06 23:00:00	84.7	352	201	856	0	0	0
09-Jun-06 00:00:00	84.7	199	201	857	0	0	0
09-Jun-06 01:00:00	84.6	202	200	856	0	0	0
09-Jun-06 02:00:00	84.4	203	200	855	0	0	0
09-Jun-06 03:00:00	84.4	202	203	854	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
09-Jun-06 04:00:00	84.4	121	139	856	0	0	0
09-Jun-06 05:00:00	84.3	121	142	858	0	0	0
09-Jun-06 06:00:00	84.2	204	207	857	0	0	0
09-Jun-06 07:00:00	84.1	202	200	856	0	0	0
09-Jun-06 08:00:00	84.2	202	201	856	0	0	0
09-Jun-06 09:00:00	84.3	202	200	857	0	0	0
09-Jun-06 10:00:00	84.3	316	200	857	0	0	0
09-Jun-06 11:00:00	84.4	383	198	854	0	0	0
09-Jun-06 12:00:00	84.4	384	202	859	0	0	0
09-Jun-06 13:00:00	84.7	383	199	857	0	0	0
09-Jun-06 14:00:00	84.7	383	201	856	0	0	0
09-Jun-06 15:00:00	85.0	383	199	857	0	0	0
09-Jun-06 16:00:00	85.2	385	189	857	0	0	0
09-Jun-06 17:00:00	85.7	384	195	856	0	0	0
09-Jun-06 18:00:00	85.5	384	434	855	0	0	0
09-Jun-06 19:00:00	85.6	383	498	855	0	0	0
09-Jun-06 20:00:00	85.5	387	502	855	0	0	0
09-Jun-06 21:00:00	85.4	384	502	855	0	0	0
09-Jun-06 22:00:00	85.3	382	501	841	0	0	0
09-Jun-06 23:00:00	85.4	385	498	854	0	0	0
10-Jun-06 00:00:00	85.5	383	501	853	0	0	0
10-Jun-06 01:00:00	85.4	353	442	852	0	0	0
10-Jun-06 02:00:00	85.4	243	336	852	0	0	0
10-Jun-06 03:00:00	85.4	174	209	852	0	0	0
10-Jun-06 04:00:00	85.4	128	148	852	0	0	0
10-Jun-06 05:00:00	85.2	130	150	853	0	0	0
10-Jun-06 06:00:00	85.1	137	155	853	0	0	0
10-Jun-06 07:00:00	85.0	131	148	853	0	0	0
10-Jun-06 08:00:00	85.0	209	237	852	0	0	0
10-Jun-06 09:00:00	85.1	306	299	853	0	0	0
10-Jun-06 10:00:00	85.3	383	486	854	0	0	0
10-Jun-06 11:00:00	85.3	387	496	855	0	0	0
10-Jun-06 12:00:00	85.4	388	495	854	0	0	0
10-Jun-06 13:00:00	85.7	383	495	855	0	0	0
10-Jun-06 14:00:00	85.8	388	493	856	0	0	0
10-Jun-06 15:00:00	85.9	392	494	855	0	0	0
10-Jun-06 16:00:00	86.2	390	498	854	0	0	0
10-Jun-06 17:00:00	86.0	389	495	854	0	0	0
10-Jun-06 18:00:00	86.5	389	494	853	0	0	0
10-Jun-06 19:00:00	86.5	390	488	852	0	0	0
10-Jun-06 20:00:00	86.3	390	498	852	0	0	0
10-Jun-06 21:00:00	86.2	390	496	853	0	0	0
10-Jun-06 22:00:00	86.0	384	496	853	0	0	0
10-Jun-06 23:00:00	85.8	389	497	853	0	0	0
11-Jun-06 00:00:00	86.1	390	493	854	0	0	0
11-Jun-06 01:00:00	86.5	289	388	854	0	0	0
11-Jun-06 02:00:00	86.6	185	203	853	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
11-Jun-06 03:00:00	86.7	152	173	852	0	0	0
11-Jun-06 04:00:00	86.7	120	139	852	0	0	0
11-Jun-06 05:00:00	86.5	132	140	853	0	0	0
11-Jun-06 06:00:00	86.4	121	110	853	0	0	0
11-Jun-06 07:00:00	86.3	121	91	852	0	0	0
11-Jun-06 08:00:00	86.2	240	0	852	0	0	0
11-Jun-06 09:00:00	86.2	288	0	851	0	0	0
11-Jun-06 10:00:00	86.3	376	0	851	0	0	0
11-Jun-06 11:00:00	86.4	386	0	851	0	0	0
11-Jun-06 12:00:00	86.3	393	0	853	0	0	0
11-Jun-06 13:00:00	86.3	388	0	854	0	0	0
11-Jun-06 14:00:00	86.7	384	0	854	0	0	0
11-Jun-06 15:00:00	86.6	383	0	854	0	0	0
11-Jun-06 16:00:00	86.1	387	0	854	0	0	0
11-Jun-06 17:00:00	86.1	383	0	854	0	0	0
11-Jun-06 18:00:00	86.0	384	0	854	0	0	0
11-Jun-06 19:00:00	86.0	386	0	854	0	0	0
11-Jun-06 20:00:00	85.9	383	0	854	0	0	0
11-Jun-06 21:00:00	85.9	386	0	854	0	0	0
11-Jun-06 22:00:00	85.8	248	0	855	0	0	0
11-Jun-06 23:00:00	85.7	263	0	855	0	0	0
12-Jun-06 00:00:00	85.7	198	0	853	0	0	0
12-Jun-06 01:00:00	85.6	121	0	854	0	0	0
12-Jun-06 02:00:00	85.4	122	0	854	0	0	0
12-Jun-06 03:00:00	85.2	121	0	852	0	0	0
12-Jun-06 04:00:00	85.4	122	0	852	0	0	0
12-Jun-06 05:00:00	85.4	121	0	852	0	0	0
12-Jun-06 06:00:00	85.4	137	0	852	0	0	0
12-Jun-06 07:00:00	85.5	218	0	853	0	0	0
12-Jun-06 08:00:00	85.5	344	0	852	0	0	0
12-Jun-06 09:00:00	85.5	286	0	853	0	0	0
12-Jun-06 10:00:00	85.8	333	0	853	0	0	0
12-Jun-06 11:00:00	85.7	351	0	854	0	0	0
12-Jun-06 12:00:00	85.4	333	0	855	0	0	0
12-Jun-06 13:00:00	85.1	276	0	855	0	0	0
12-Jun-06 14:00:00	84.9	225	0	854	0	0	0
12-Jun-06 15:00:00	84.6	222	0	854	0	0	0
12-Jun-06 16:00:00	84.3	237	0	854	0	0	0
12-Jun-06 17:00:00	84.3	308	0	854	0	0	0
12-Jun-06 18:00:00	84.2	304	0	856	0	0	0
12-Jun-06 19:00:00	84.1	304	0	857	0	0	0
12-Jun-06 20:00:00	84.0	269	0	856	0	0	0
12-Jun-06 21:00:00	83.8	341	0	858	0	0	0
12-Jun-06 22:00:00	83.5	282	0	857	0	0	0
12-Jun-06 23:00:00	83.1	385	0	857	0	0	0
13-Jun-06 00:00:00	83.0	328	0	857	0	0	0
13-Jun-06 01:00:00	82.8	242	0	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
13-Jun-06 02:00:00	82.6	171	0	857	0	0	0
13-Jun-06 03:00:00	82.1	126	0	859	0	0	0
13-Jun-06 04:00:00	81.5	149	0	859	0	0	0
13-Jun-06 05:00:00	81.3	260	0	858	0	0	0
13-Jun-06 06:00:00	81.0	348	0	858	0	0	0
13-Jun-06 07:00:00	80.9	337	0	857	0	0	0
13-Jun-06 08:00:00	80.9	372	0	859	0	0	0
13-Jun-06 09:00:00	80.9	374	0	860	0	0	0
13-Jun-06 10:00:00	81.1	370	0	861	0	0	0
13-Jun-06 11:00:00	81.1	367	0	861	0	0	0
13-Jun-06 12:00:00	81.3	371	0	860	0	0	0
13-Jun-06 13:00:00	81.5	373	0	860	0	0	0
13-Jun-06 14:00:00	81.7	376	0	861	0	0	0
13-Jun-06 15:00:00	81.8	378	0	861	0	0	0
13-Jun-06 16:00:00	81.4	360	0	860	0	0	0
13-Jun-06 17:00:00	80.7	375	0	862	0	0	0
13-Jun-06 18:00:00	80.5	372	0	861	0	0	0
13-Jun-06 19:00:00	80.9	372	0	862	0	0	0
13-Jun-06 20:00:00	80.6	378	0	861	0	0	0
13-Jun-06 21:00:00	80.5	375	0	861	0	0	0
13-Jun-06 22:00:00	80.4	357	0	863	0	0	0
13-Jun-06 23:00:00	80.2	359	0	862	0	0	0
14-Jun-06 00:00:00	80.2	364	0	861	0	0	0
14-Jun-06 01:00:00	79.9	364	0	861	0	0	0
14-Jun-06 02:00:00	79.6	328	0	860	0	0	0
14-Jun-06 03:00:00	79.3	306	0	860	0	0	0
14-Jun-06 04:00:00	79.3	344	0	861	0	0	0
14-Jun-06 05:00:00	79.2	337	0	861	0	0	0
14-Jun-06 06:00:00	79.3	369	0	863	0	0	0
14-Jun-06 07:00:00	79.7	361	0	862	0	0	0
14-Jun-06 08:00:00	79.8	363	0	862	0	0	0
14-Jun-06 09:00:00	79.8	362	0	862	0	0	0
14-Jun-06 10:00:00	80.1	370	0	862	0	0	0
14-Jun-06 11:00:00	80.5	370	0	862	0	0	0
14-Jun-06 12:00:00	80.7	327	0	862	0	0	0
14-Jun-06 13:00:00	81.0	369	0	860	0	0	0
14-Jun-06 14:00:00	81.1	367	0	861	0	0	0
14-Jun-06 15:00:00	81.1	304	0	862	0	0	0
14-Jun-06 16:00:00	81.2	304	0	862	0	0	0
14-Jun-06 17:00:00	81.2	363	0	861	0	0	0
14-Jun-06 18:00:00	81.3	361	0	861	0	0	0
14-Jun-06 19:00:00	81.4	376	0	860	0	0	0
14-Jun-06 20:00:00	81.4	386	0	860	0	0	0
14-Jun-06 21:00:00	81.1	387	0	861	0	0	0
14-Jun-06 22:00:00	81.2	362	0	859	0	0	0
14-Jun-06 23:00:00	80.9	363	0	859	0	0	0
15-Jun-06 00:00:00	80.5	357	0	859	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
15-Jun-06 01:00:00	80.7	356	0	860	0	0	0
15-Jun-06 02:00:00	81.1	359	0	859	0	0	0
15-Jun-06 03:00:00	81.4	338	0	858	0	0	0
15-Jun-06 04:00:00	81.1	275	0	859	0	0	0
15-Jun-06 05:00:00	81.1	223	0	858	0	0	0
15-Jun-06 06:00:00	81.1	320	0	858	0	0	0
15-Jun-06 07:00:00	80.9	285	0	859	0	0	0
15-Jun-06 08:00:00	80.8	331	0	860	0	0	0
15-Jun-06 09:00:00	80.8	358	0	861	0	0	0
15-Jun-06 10:00:00	81.0	358	0	860	0	0	0
15-Jun-06 11:00:00	81.1	353	0	862	0	0	0
15-Jun-06 12:00:00	81.5	355	0	861	0	0	0
15-Jun-06 13:00:00	81.7	361	0	861	0	0	0
15-Jun-06 14:00:00	82.4	367	0	860	0	0	0
15-Jun-06 15:00:00	82.6	368	0	860	0	0	0
15-Jun-06 16:00:00	82.7	369	0	860	0	0	0
15-Jun-06 17:00:00	82.6	358	32	860	0	0	0
15-Jun-06 18:00:00	82.7	356	80	860	0	0	0
15-Jun-06 19:00:00	82.8	359	230	860	0	0	0
15-Jun-06 20:00:00	82.7	358	301	860	0	0	0
15-Jun-06 21:00:00	82.8	360	363	859	0	0	0
15-Jun-06 22:00:00	82.7	358	321	859	0	0	0
15-Jun-06 23:00:00	82.6	356	336	860	0	0	0
16-Jun-06 00:00:00	82.1	358	301	860	0	0	0
16-Jun-06 01:00:00	82.0	363	379	859	0	0	0
16-Jun-06 02:00:00	82.1	317	343	857	0	0	0
16-Jun-06 03:00:00	82.5	201	204	858	0	0	0
16-Jun-06 04:00:00	82.8	129	157	858	0	0	0
16-Jun-06 05:00:00	83.1	121	142	856	0	0	0
16-Jun-06 06:00:00	83.2	200	218	857	0	0	0
16-Jun-06 07:00:00	83.3	225	253	857	0	0	0
16-Jun-06 08:00:00	83.0	321	412	858	0	0	0
16-Jun-06 09:00:00	82.9	338	463	858	0	0	0
16-Jun-06 10:00:00	83.0	352	479	857	0	0	0
16-Jun-06 11:00:00	83.1	358	483	858	0	0	0
16-Jun-06 12:00:00	83.0	358	479	858	0	0	0
16-Jun-06 13:00:00	83.1	362	371	858	0	0	0
16-Jun-06 14:00:00	83.2	365	366	856	0	0	0
16-Jun-06 15:00:00	83.5	364	368	854	0	0	0
16-Jun-06 16:00:00	84.0	363	362	857	0	0	0
16-Jun-06 17:00:00	84.0	364	370	857	0	0	0
16-Jun-06 18:00:00	83.6	366	368	858	0	0	0
16-Jun-06 19:00:00	83.7	365	377	859	0	0	0
16-Jun-06 20:00:00	83.7	369	382	857	0	0	0
16-Jun-06 21:00:00	83.6	369	375	857	0	0	0
16-Jun-06 22:00:00	83.5	368	376	857	0	0	0
16-Jun-06 23:00:00	83.2	369	375	858	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
17-Jun-06 00:00:00	83.2	370	377	857	0	0	0
17-Jun-06 01:00:00	83.1	368	378	855	0	0	0
17-Jun-06 02:00:00	83.1	300	299	857	0	0	0
17-Jun-06 03:00:00	83.1	207	289	857	0	0	0
17-Jun-06 04:00:00	83.2	136	273	857	0	0	0
17-Jun-06 05:00:00	83.1	136	142	842	0	0	0
17-Jun-06 06:00:00	83.0	123	167	858	0	0	0
17-Jun-06 07:00:00	83.0	122	156	857	0	0	0
17-Jun-06 08:00:00	83.2	184	213	856	0	0	0
17-Jun-06 09:00:00	83.2	261	291	856	0	0	0
17-Jun-06 10:00:00	83.2	351	304	857	0	0	0
17-Jun-06 11:00:00	83.3	378	299	858	0	0	0
17-Jun-06 12:00:00	83.4	379	300	858	0	0	0
17-Jun-06 13:00:00	83.5	379	299	858	0	0	0
17-Jun-06 14:00:00	83.4	375	298	859	0	0	0
17-Jun-06 15:00:00	83.5	377	301	858	0	0	0
17-Jun-06 16:00:00	83.6	376	299	858	0	0	0
17-Jun-06 17:00:00	83.7	378	301	859	0	0	0
17-Jun-06 18:00:00	83.5	376	299	859	0	0	0
17-Jun-06 19:00:00	83.6	380	300	859	0	0	0
17-Jun-06 20:00:00	83.5	380	301	859	0	0	0
17-Jun-06 21:00:00	83.5	380	300	858	0	0	0
17-Jun-06 22:00:00	83.3	371	296	858	0	0	0
17-Jun-06 23:00:00	83.2	328	237	859	0	0	0
18-Jun-06 00:00:00	83.1	259	227	856	0	0	0
18-Jun-06 01:00:00	83.1	215	142	855	0	0	0
18-Jun-06 02:00:00	83.1	121	142	855	0	0	0
18-Jun-06 03:00:00	83.0	121	142	855	0	0	0
18-Jun-06 04:00:00	83.0	121	142	855	0	0	0
18-Jun-06 05:00:00	82.7	138	156	856	0	0	0
18-Jun-06 06:00:00	82.7	129	147	856	0	0	0
18-Jun-06 07:00:00	82.6	137	156	856	0	0	0
18-Jun-06 08:00:00	82.2	196	213	856	0	0	0
18-Jun-06 09:00:00	82.3	280	264	857	0	0	0
18-Jun-06 10:00:00	82.4	293	271	858	0	0	0
18-Jun-06 11:00:00	82.5	319	314	858	0	0	0
18-Jun-06 12:00:00	82.6	375	410	857	0	0	0
18-Jun-06 13:00:00	82.7	375	467	858	0	0	0
18-Jun-06 14:00:00	82.7	284	507	858	0	0	0
18-Jun-06 15:00:00	82.7	324	506	859	0	0	0
18-Jun-06 16:00:00	82.7	343	511	859	0	0	0
18-Jun-06 17:00:00	82.8	362	502	858	0	0	0
18-Jun-06 18:00:00	82.8	286	507	858	0	0	0
18-Jun-06 19:00:00	82.7	387	507	859	0	0	0
18-Jun-06 20:00:00	82.8	380	505	858	0	0	0
18-Jun-06 21:00:00	82.8	385	490	859	0	0	0
18-Jun-06 22:00:00	82.7	310	394	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
18-Jun-06 23:00:00	82.6	283	386	856	0	0	0
19-Jun-06 00:00:00	82.5	209	378	856	0	0	0
19-Jun-06 01:00:00	82.4	120	150	856	0	0	0
19-Jun-06 02:00:00	82.4	123	0	856	0	0	0
19-Jun-06 03:00:00	82.5	157	0	855	0	0	0
19-Jun-06 04:00:00	82.4	197	0	855	0	0	0
19-Jun-06 05:00:00	82.3	122	22	856	0	0	0
19-Jun-06 06:00:00	82.0	178	47	857	0	0	0
19-Jun-06 07:00:00	81.9	188	92	857	0	0	0
19-Jun-06 08:00:00	81.8	285	140	860	0	0	0
19-Jun-06 09:00:00	81.9	385	212	860	0	0	0
19-Jun-06 10:00:00	81.9	386	256	861	0	0	0
19-Jun-06 11:00:00	82.0	384	394	858	0	0	0
19-Jun-06 12:00:00	82.3	387	492	859	0	0	0
19-Jun-06 13:00:00	82.8	388	501	859	0	0	0
19-Jun-06 14:00:00	82.9	383	499	859	0	0	0
19-Jun-06 15:00:00	83.2	385	490	858	0	0	0
19-Jun-06 16:00:00	83.6	385	491	857	0	0	0
19-Jun-06 17:00:00	83.9	385	505	856	0	0	0
19-Jun-06 18:00:00	84.5	383	501	856	0	0	0
19-Jun-06 19:00:00	84.4	384	504	856	0	0	0
19-Jun-06 20:00:00	84.3	386	504	856	0	0	0
19-Jun-06 21:00:00	84.3	384	505	856	0	0	0
19-Jun-06 22:00:00	83.9	381	502	856	0	0	0
19-Jun-06 23:00:00	83.5	253	489	857	0	0	0
20-Jun-06 00:00:00	83.3	220	433	856	0	0	0
20-Jun-06 01:00:00	83.2	167	299	856	0	0	0
20-Jun-06 02:00:00	83.2	126	152	856	0	0	0
20-Jun-06 03:00:00	83.1	134	166	856	0	0	0
20-Jun-06 04:00:00	83.1	128	156	855	0	0	0
20-Jun-06 05:00:00	83.1	120	234	855	0	0	0
20-Jun-06 06:00:00	83.1	156	237	855	0	0	0
20-Jun-06 07:00:00	83.2	121	319	855	0	0	0
20-Jun-06 08:00:00	83.0	224	382	856	0	0	0
20-Jun-06 09:00:00	83.1	304	499	856	0	0	0
20-Jun-06 10:00:00	83.4	382	499	857	0	0	0
20-Jun-06 11:00:00	83.9	372	500	857	0	0	0
20-Jun-06 12:00:00	83.9	378	502	858	0	0	0
20-Jun-06 13:00:00	84.1	380	500	857	0	0	0
20-Jun-06 14:00:00	84.7	378	500	856	0	0	0
20-Jun-06 15:00:00	84.8	380	499	855	0	0	0
20-Jun-06 16:00:00	85.1	378	498	855	0	0	0
20-Jun-06 17:00:00	85.3	378	498	855	0	0	0
20-Jun-06 18:00:00	85.6	382	499	854	0	0	0
20-Jun-06 19:00:00	85.9	377	503	854	0	0	0
20-Jun-06 20:00:00	85.9	381	501	855	0	0	0
20-Jun-06 21:00:00	86.1	378	503	855	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
20-Jun-06 22:00:00	86.1	378	498	855	0	0	0
20-Jun-06 23:00:00	85.8	380	427	855	0	0	0
21-Jun-06 00:00:00	85.6	378	380	856	0	0	0
21-Jun-06 01:00:00	85.3	343	380	856	0	0	0
21-Jun-06 02:00:00	85.1	249	225	854	0	0	0
21-Jun-06 03:00:00	85.0	170	155	855	0	0	0
21-Jun-06 04:00:00	84.9	127	153	855	0	0	0
21-Jun-06 05:00:00	84.9	165	190	855	0	0	0
21-Jun-06 06:00:00	84.9	221	239	856	0	0	0
21-Jun-06 07:00:00	85.0	236	244	854	0	0	0
21-Jun-06 08:00:00	85.0	358	374	855	0	0	0
21-Jun-06 09:00:00	84.9	382	380	855	0	0	0
21-Jun-06 10:00:00	85.1	383	380	853	0	0	0
21-Jun-06 11:00:00	85.3	384	381	854	0	0	0
21-Jun-06 12:00:00	85.4	380	382	855	0	0	0
21-Jun-06 13:00:00	85.7	382	391	855	0	0	0
21-Jun-06 14:00:00	85.8	383	385	855	0	0	0
21-Jun-06 15:00:00	86.0	382	410	855	0	0	0
21-Jun-06 16:00:00	86.4	382	496	855	0	0	0
21-Jun-06 17:00:00	86.8	383	507	853	0	0	0
21-Jun-06 18:00:00	87.1	385	504	853	0	0	0
21-Jun-06 19:00:00	87.1	382	507	853	0	0	0
21-Jun-06 20:00:00	87.1	384	504	853	0	0	0
21-Jun-06 21:00:00	87.0	382	504	865	0	0	0
21-Jun-06 22:00:00	87.3	382	500	852	0	0	0
21-Jun-06 23:00:00	87.2	261	499	852	0	0	0
22-Jun-06 00:00:00	86.9	251	504	852	0	0	0
22-Jun-06 01:00:00	86.8	254	508	852	0	0	0
22-Jun-06 02:00:00	86.8	223	495	852	0	0	0
22-Jun-06 03:00:00	86.7	121	369	853	0	0	0
22-Jun-06 04:00:00	86.6	123	190	853	0	0	0
22-Jun-06 05:00:00	86.6	133	161	851	0	0	0
22-Jun-06 06:00:00	86.5	240	257	832	0	0	0
22-Jun-06 07:00:00	86.5	252	326	852	0	0	0
22-Jun-06 08:00:00	86.6	285	394	852	0	0	0
22-Jun-06 09:00:00	86.5	376	488	853	0	0	0
22-Jun-06 10:00:00	86.4	381	513	853	0	0	0
22-Jun-06 11:00:00	86.6	386	504	854	0	0	0
22-Jun-06 12:00:00	86.8	384	509	854	0	0	0
22-Jun-06 13:00:00	86.8	385	509	853	0	0	0
22-Jun-06 14:00:00	86.9	383	523	852	0	0	0
22-Jun-06 15:00:00	86.9	385	512	854	0	0	0
22-Jun-06 16:00:00	87.0	382	507	852	0	0	0
22-Jun-06 17:00:00	87.3	386	509	852	0	0	0
22-Jun-06 18:00:00	87.4	383	508	852	0	0	0
22-Jun-06 19:00:00	87.5	385	489	850	0	0	0
22-Jun-06 20:00:00	87.6	385	512	851	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
22-Jun-06 21:00:00	87.8	377	503	852	0	0	0
22-Jun-06 22:00:00	87.8	377	507	851	0	0	0
22-Jun-06 23:00:00	87.9	254	498	848	0	0	0
23-Jun-06 00:00:00	88.0	230	508	849	0	0	0
23-Jun-06 01:00:00	88.0	229	502	851	0	0	0
23-Jun-06 02:00:00	87.9	226	452	850	0	0	0
23-Jun-06 03:00:00	87.7	227	251	851	0	0	0
23-Jun-06 04:00:00	87.3	227	142	851	0	0	0
23-Jun-06 05:00:00	87.3	227	142	851	0	0	0
23-Jun-06 06:00:00	87.3	227	168	852	0	0	0
23-Jun-06 07:00:00	87.4	225	180	852	0	0	0
23-Jun-06 08:00:00	87.4	333	263	850	0	0	0
23-Jun-06 09:00:00	87.4	381	448	850	0	0	0
23-Jun-06 10:00:00	87.4	384	505	853	0	0	0
23-Jun-06 11:00:00	87.5	369	510	854	0	0	0
23-Jun-06 12:00:00	87.3	384	505	853	2	0	2
23-Jun-06 13:00:00	87.4	385	507	853	18	0	18
23-Jun-06 14:00:00	87.5	381	512	847	34	0	34
23-Jun-06 15:00:00	87.7	385	510	852	51	0	51
23-Jun-06 16:00:00	87.7	385	510	852	51	0	51
23-Jun-06 17:00:00	88.3	388	501	851	52	0	52
23-Jun-06 18:00:00	88.5	386	497	851	44	0	44
23-Jun-06 19:00:00	88.3	385	497	850	35	0	35
23-Jun-06 20:00:00	88.0	383	500	849	26	0	26
23-Jun-06 21:00:00	87.7	363	501	850	16	0	16
23-Jun-06 22:00:00	87.8	377	498	851	0	0	0
23-Jun-06 23:00:00	87.9	382	501	851	0	0	0
24-Jun-06 00:00:00	88.1	360	495	851	0	0	0
24-Jun-06 01:00:00	88.1	337	449	850	0	0	0
24-Jun-06 02:00:00	88.3	202	308	850	0	0	0
24-Jun-06 03:00:00	88.3	121	272	850	0	0	0
24-Jun-06 04:00:00	87.9	120	145	849	0	0	0
24-Jun-06 05:00:00	87.8	120	147	846	0	0	0
24-Jun-06 06:00:00	87.8	121	157	852	0	0	0
24-Jun-06 07:00:00	87.7	123	146	852	0	0	0
24-Jun-06 08:00:00	87.6	275	247	852	0	0	0
24-Jun-06 09:00:00	87.7	367	413	852	0	0	0
24-Jun-06 10:00:00	87.7	383	492	851	0	0	0
24-Jun-06 11:00:00	87.7	383	503	851	0	0	0
24-Jun-06 12:00:00	87.6	390	507	851	0	0	0
24-Jun-06 13:00:00	87.5	389	505	851	0	0	0
24-Jun-06 14:00:00	87.5	391	501	851	4	0	4
24-Jun-06 15:00:00	87.7	391	505	852	13	0	13
24-Jun-06 16:00:00	87.4	388	504	853	22	0	22
24-Jun-06 17:00:00	87.5	388	505	854	31	0	31
24-Jun-06 18:00:00	87.5	388	507	852	40	0	40
24-Jun-06 19:00:00	87.3	380	503	850	27	0	27

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
24-Jun-06 20:00:00	87.3	353	507	851	8	0	8
24-Jun-06 21:00:00	87.4	378	508	851	0	0	0
24-Jun-06 22:00:00	87.3	364	504	851	0	0	0
24-Jun-06 23:00:00	87.2	321	482	851	0	0	0
25-Jun-06 00:00:00	87.2	284	381	851	0	0	0
25-Jun-06 01:00:00	87.0	197	278	850	0	0	0
25-Jun-06 02:00:00	86.9	120	226	850	0	0	0
25-Jun-06 03:00:00	86.8	126	172	851	0	0	0
25-Jun-06 04:00:00	86.7	123	142	851	0	0	0
25-Jun-06 05:00:00	86.7	124	147	852	0	0	0
25-Jun-06 06:00:00	86.7	136	159	850	0	0	0
25-Jun-06 07:00:00	86.6	130	150	851	0	0	0
25-Jun-06 08:00:00	86.6	219	223	852	0	0	0
25-Jun-06 09:00:00	86.6	301	301	852	0	0	0
25-Jun-06 10:00:00	86.6	378	343	853	0	0	0
25-Jun-06 11:00:00	86.6	382	509	853	0	0	0
25-Jun-06 12:00:00	86.5	383	502	853	0	0	0
25-Jun-06 13:00:00	86.4	379	503	853	0	0	0
25-Jun-06 14:00:00	86.3	387	506	853	0	0	0
25-Jun-06 15:00:00	86.5	385	511	853	0	0	0
25-Jun-06 16:00:00	86.4	384	501	854	0	0	0
25-Jun-06 17:00:00	86.5	370	510	848	0	0	0
25-Jun-06 18:00:00	86.5	292	434	853	0	0	0
25-Jun-06 19:00:00	86.5	223	310	852	0	0	0
25-Jun-06 20:00:00	86.5	240	309	852	0	0	0
25-Jun-06 21:00:00	86.4	263	328	852	0	0	0
25-Jun-06 22:00:00	86.4	282	352	852	0	0	0
25-Jun-06 23:00:00	86.4	292	373	850	0	0	0
26-Jun-06 00:00:00	86.3	176	241	851	0	0	0
26-Jun-06 01:00:00	86.2	120	140	852	0	0	0
26-Jun-06 02:00:00	86.0	121	142	851	0	0	0
26-Jun-06 03:00:00	85.9	123	146	853	0	0	0
26-Jun-06 04:00:00	85.7	127	148	854	0	0	0
26-Jun-06 05:00:00	85.7	138	159	853	0	0	0
26-Jun-06 06:00:00	85.7	183	206	852	0	0	0
26-Jun-06 07:00:00	85.7	191	209	853	0	0	0
26-Jun-06 08:00:00	85.6	211	295	855	0	0	0
26-Jun-06 09:00:00	85.7	260	390	868	0	0	0
26-Jun-06 10:00:00	85.7	288	433	852	0	0	0
26-Jun-06 11:00:00	85.7	374	489	852	0	0	0
26-Jun-06 12:00:00	85.8	339	445	854	0	0	0
26-Jun-06 13:00:00	85.8	380	509	854	0	0	0
26-Jun-06 14:00:00	85.7	384	510	855	0	0	0
26-Jun-06 15:00:00	85.7	384	506	856	0	0	0
26-Jun-06 16:00:00	85.5	382	510	853	0	0	0
26-Jun-06 17:00:00	85.4	381	508	852	0	0	0
26-Jun-06 18:00:00	85.5	320	511	855	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
26-Jun-06 19:00:00	85.5	305	501	855	0	0	0
26-Jun-06 20:00:00	85.6	232	352	854	0	0	0
26-Jun-06 21:00:00	85.5	307	381	854	0	0	0
26-Jun-06 22:00:00	85.5	295	361	851	0	0	0
26-Jun-06 23:00:00	85.5	259	326	850	0	0	0
27-Jun-06 00:00:00	85.6	232	263	851	0	0	0
27-Jun-06 01:00:00	85.6	222	223	851	0	0	0
27-Jun-06 02:00:00	85.3	187	191	853	0	0	0
27-Jun-06 03:00:00	84.9	162	166	853	0	0	0
27-Jun-06 04:00:00	84.7	128	142	854	0	0	0
27-Jun-06 05:00:00	84.5	130	148	854	0	0	0
27-Jun-06 06:00:00	84.5	190	215	855	0	0	0
27-Jun-06 07:00:00	84.6	242	248	855	0	0	0
27-Jun-06 08:00:00	84.6	314	329	855	0	0	0
27-Jun-06 09:00:00	84.7	336	388	854	0	0	0
27-Jun-06 10:00:00	84.9	355	417	854	0	0	0
27-Jun-06 11:00:00	85.1	386	505	857	0	0	0
27-Jun-06 12:00:00	85.4	389	509	855	0	0	0
27-Jun-06 13:00:00	85.6	393	509	854	0	0	0
27-Jun-06 14:00:00	85.8	382	459	853	0	0	0
27-Jun-06 15:00:00	86.0	251	493	853	0	0	0
27-Jun-06 16:00:00	86.0	242	496	854	0	0	0
27-Jun-06 17:00:00	86.1	219	494	853	0	0	0
27-Jun-06 18:00:00	86.1	202	494	853	0	0	0
27-Jun-06 19:00:00	86.0	208	501	853	0	0	0
27-Jun-06 20:00:00	85.9	215	500	855	0	0	0
27-Jun-06 21:00:00	85.8	241	498	854	0	0	0
27-Jun-06 22:00:00	85.7	252	498	854	0	0	0
27-Jun-06 23:00:00	85.6	253	505	853	0	0	0
28-Jun-06 00:00:00	85.6	251	298	853	0	0	0
28-Jun-06 01:00:00	85.7	126	200	852	0	0	0
28-Jun-06 02:00:00	85.9	121	177	852	0	0	0
28-Jun-06 03:00:00	86.0	120	138	851	0	0	0
28-Jun-06 04:00:00	86.0	128	143	851	0	0	0
28-Jun-06 05:00:00	86.0	130	139	853	0	0	0
28-Jun-06 06:00:00	85.9	184	141	853	0	0	0
28-Jun-06 07:00:00	86.0	231	151	853	0	0	0
28-Jun-06 08:00:00	86.0	283	360	854	0	0	0
28-Jun-06 09:00:00	86.0	351	496	853	0	0	0
28-Jun-06 10:00:00	86.1	376	502	852	0	0	0
28-Jun-06 11:00:00	86.1	383	503	853	0	0	0
28-Jun-06 12:00:00	86.3	384	500	854	0	0	0
28-Jun-06 13:00:00	86.7	384	501	853	0	0	0
28-Jun-06 14:00:00	87.3	381	506	853	0	0	0
28-Jun-06 15:00:00	87.0	382	505	853	0	0	0
28-Jun-06 16:00:00	87.1	385	504	852	0	0	0
28-Jun-06 17:00:00	87.2	381	505	855	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
28-Jun-06 18:00:00	87.2	384	503	853	0	0	0
28-Jun-06 19:00:00	87.1	385	501	851	0	0	0
28-Jun-06 20:00:00	87.0	383	501	829	0	0	0
28-Jun-06 21:00:00	86.2	383	504	867	0	0	0
28-Jun-06 22:00:00	86.7	363	459	850	0	0	0
28-Jun-06 23:00:00	86.5	328	405	851	0	0	0
29-Jun-06 00:00:00	86.4	271	265	851	0	0	0
29-Jun-06 01:00:00	86.6	312	283	852	0	0	0
29-Jun-06 02:00:00	86.7	314	283	851	0	0	0
29-Jun-06 03:00:00	87.0	291	257	851	0	0	0
29-Jun-06 04:00:00	87.2	157	223	848	0	0	0
29-Jun-06 05:00:00	87.4	195	247	849	0	0	0
29-Jun-06 06:00:00	87.4	281	219	850	0	0	0
29-Jun-06 07:00:00	87.1	353	295	851	0	0	0
29-Jun-06 08:00:00	87.2	310	391	857	0	0	0
29-Jun-06 09:00:00	87.2	380	503	850	0	0	0
29-Jun-06 10:00:00	87.2	383	499	853	0	0	0
29-Jun-06 11:00:00	87.1	385	508	853	0	0	0
29-Jun-06 12:00:00	87.3	385	507	852	0	0	0
29-Jun-06 13:00:00	87.6	385	501	851	0	0	0
29-Jun-06 14:00:00	88.2	386	507	849	0	0	0
29-Jun-06 15:00:00	88.6	386	505	849	0	0	0
29-Jun-06 16:00:00	88.3	388	498	849	4	0	4
29-Jun-06 17:00:00	88.4	389	509	848	19	0	19
29-Jun-06 18:00:00	88.4	386	508	851	33	0	33
29-Jun-06 19:00:00	88.0	387	506	851	17	0	17
29-Jun-06 20:00:00	87.9	389	503	851	0	0	0
29-Jun-06 21:00:00	87.7	385	508	850	0	0	0
29-Jun-06 22:00:00	87.7	386	506	850	0	0	0
29-Jun-06 23:00:00	87.6	338	460	848	0	0	0
30-Jun-06 00:00:00	87.7	319	289	850	0	0	0
30-Jun-06 01:00:00	87.8	339	262	850	0	0	0
30-Jun-06 02:00:00	87.6	382	219	852	0	0	0
30-Jun-06 03:00:00	87.6	362	173	849	0	0	0
30-Jun-06 04:00:00	87.7	194	171	849	0	0	0
30-Jun-06 05:00:00	87.9	204	178	850	0	0	0
30-Jun-06 06:00:00	88.0	227	148	850	0	0	0
30-Jun-06 07:00:00	88.0	263	142	849	0	0	0
30-Jun-06 08:00:00	88.0	280	294	849	0	0	0
30-Jun-06 09:00:00	88.0	372	424	849	0	0	0
30-Jun-06 10:00:00	88.0	384	504	849	0	0	0
30-Jun-06 11:00:00	88.0	383	506	849	21	0	21
30-Jun-06 12:00:00	87.9	380	510	850	21	0	21
30-Jun-06 13:00:00	88.1	381	497	850	22	0	22
30-Jun-06 14:00:00	88.2	385	507	850	22	0	22
30-Jun-06 15:00:00	88.3	384	505	850	23	0	23
30-Jun-06 16:00:00	88.3	387	505	849	23	0	23

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
30-Jun-06 17:00:00	88.2	386	508	849	23	0	23
30-Jun-06 18:00:00	88.1	382	507	850	24	0	24
30-Jun-06 19:00:00	88.1	383	497	850	14	0	14
30-Jun-06 20:00:00	88.1	388	504	849	0	0	0
30-Jun-06 21:00:00	88.0	382	512	848	0	0	0
30-Jun-06 22:00:00	88.0	384	505	849	0	0	0
30-Jun-06 23:00:00	87.9	317	508	850	0	0	0
01-Jul-06 00:00:00	87.9	212	509	849	0	0	0
01-Jul-06 01:00:00	87.8	210	378	849	0	0	0
01-Jul-06 02:00:00	87.7	212	382	848	0	0	0
01-Jul-06 03:00:00	87.6	214	338	848	0	0	0
01-Jul-06 04:00:00	87.3	211	344	848	0	0	0
01-Jul-06 05:00:00	87.3	212	375	848	0	0	0
01-Jul-06 06:00:00	87.3	214	387	850	0	0	0
01-Jul-06 07:00:00	87.5	213	388	849	0	0	0
01-Jul-06 08:00:00	87.5	279	483	848	0	0	0
01-Jul-06 09:00:00	87.6	373	502	850	0	0	0
01-Jul-06 10:00:00	87.6	381	501	850	0	0	0
01-Jul-06 11:00:00	87.7	381	507	850	0	0	0
01-Jul-06 12:00:00	87.7	384	507	850	0	0	0
01-Jul-06 13:00:00	87.7	377	509	850	0	0	0
01-Jul-06 14:00:00	87.7	383	504	851	0	0	0
01-Jul-06 15:00:00	87.9	389	511	850	9	0	9
01-Jul-06 16:00:00	87.9	387	500	849	27	0	27
01-Jul-06 17:00:00	88.1	387	509	849	20	0	20
01-Jul-06 18:00:00	87.8	390	508	849	13	0	13
01-Jul-06 19:00:00	87.7	387	498	850	7	0	7
01-Jul-06 20:00:00	87.6	386	502	850	0	0	0
01-Jul-06 21:00:00	87.6	386	500	850	0	0	0
01-Jul-06 22:00:00	87.5	387	502	849	0	0	0
01-Jul-06 23:00:00	87.4	388	504	851	0	0	0
02-Jul-06 00:00:00	87.4	389	498	849	0	0	0
02-Jul-06 01:00:00	87.3	390	503	847	0	0	0
02-Jul-06 02:00:00	87.2	347	481	848	0	0	0
02-Jul-06 03:00:00	87.1	355	487	850	0	0	0
02-Jul-06 04:00:00	86.8	304	431	851	0	0	0
02-Jul-06 05:00:00	86.7	279	407	850	0	0	0
02-Jul-06 06:00:00	86.7	276	407	850	0	0	0
02-Jul-06 07:00:00	86.9	222	341	851	0	0	0
02-Jul-06 08:00:00	87.0	280	449	850	0	0	0
02-Jul-06 09:00:00	86.9	338	474	849	0	0	0
02-Jul-06 10:00:00	86.9	381	512	850	0	0	0
02-Jul-06 11:00:00	86.9	383	513	852	0	0	0
02-Jul-06 12:00:00	86.9	385	517	853	0	0	0
02-Jul-06 13:00:00	86.8	390	525	853	0	0	0
02-Jul-06 14:00:00	86.9	390	523	853	0	0	0
02-Jul-06 15:00:00	87.0	389	514	853	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
02-Jul-06 16:00:00	87.2	390	516	852	0	0	0
02-Jul-06 17:00:00	87.4	388	518	852	0	0	0
02-Jul-06 18:00:00	87.3	391	515	852	0	0	0
02-Jul-06 19:00:00	87.2	389	511	852	0	0	0
02-Jul-06 20:00:00	87.1	388	482	852	0	0	0
02-Jul-06 21:00:00	87.0	384	489	852	0	0	0
02-Jul-06 22:00:00	86.8	385	481	852	0	0	0
02-Jul-06 23:00:00	86.9	298	398	850	0	0	0
03-Jul-06 00:00:00	86.7	175	258	850	0	0	0
03-Jul-06 01:00:00	86.6	132	167	851	0	0	0
03-Jul-06 02:00:00	86.5	130	149	852	0	0	0
03-Jul-06 03:00:00	86.5	139	158	851	0	0	0
03-Jul-06 04:00:00	86.4	139	159	850	0	0	0
03-Jul-06 05:00:00	86.3	148	171	850	0	0	0
03-Jul-06 06:00:00	86.1	176	205	851	0	0	0
03-Jul-06 07:00:00	86.1	123	143	852	0	0	0
03-Jul-06 08:00:00	86.2	215	229	851	0	0	0
03-Jul-06 09:00:00	86.3	289	358	850	0	0	0
03-Jul-06 10:00:00	86.3	385	492	848	0	0	0
03-Jul-06 11:00:00	86.5	388	509	848	0	0	0
03-Jul-06 12:00:00	86.5	387	507	849	0	0	0
03-Jul-06 13:00:00	86.6	386	506	850	0	0	0
03-Jul-06 14:00:00	86.7	388	506	852	0	0	0
03-Jul-06 15:00:00	87.0	389	511	853	0	0	0
03-Jul-06 16:00:00	87.5	388	504	852	0	0	0
03-Jul-06 17:00:00	88.2	389	495	852	0	0	0
03-Jul-06 18:00:00	88.1	390	501	851	22	0	22
03-Jul-06 19:00:00	88.1	388	500	851	45	0	45
03-Jul-06 20:00:00	87.8	385	509	647	54	0	54
03-Jul-06 21:00:00	87.7	384	499	649	16	0	16
03-Jul-06 22:00:00	87.6	387	504	646	0	0	0
03-Jul-06 23:00:00	87.4	385	505	647	0	0	0
04-Jul-06 00:00:00	87.5	355	460	648	0	0	0
04-Jul-06 01:00:00	87.4	311	416	649	0	0	0
04-Jul-06 02:00:00	87.3	236	357	648	0	0	0
04-Jul-06 03:00:00	87.1	187	287	650	0	0	0
04-Jul-06 04:00:00	87.2	148	251	652	0	0	0
04-Jul-06 05:00:00	87.1	124	228	652	0	0	0
04-Jul-06 06:00:00	87.1	136	239	652	0	0	0
04-Jul-06 07:00:00	86.9	120	222	652	0	0	0
04-Jul-06 08:00:00	86.8	211	288	652	0	0	0
04-Jul-06 09:00:00	86.9	347	406	651	0	0	0
04-Jul-06 10:00:00	87.0	387	494	652	0	0	0
04-Jul-06 11:00:00	87.1	384	501	654	0	0	0
04-Jul-06 12:00:00	87.3	384	501	651	0	0	0
04-Jul-06 13:00:00	87.4	383	502	651	6	0	6
04-Jul-06 14:00:00	87.7	383	501	651	20	0	20

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
04-Jul-06 15:00:00	88.0	383	503	650	34	0	34
04-Jul-06 16:00:00	87.9	383	503	651	49	0	49
04-Jul-06 17:00:00	88.0	383	500	651	63	0	63
04-Jul-06 18:00:00	88.2	385	497	651	77	0	77
04-Jul-06 19:00:00	88.4	383	499	651	68	0	68
04-Jul-06 20:00:00	88.3	381	500	651	46	0	46
04-Jul-06 21:00:00	88.2	388	495	652	24	0	24
04-Jul-06 22:00:00	88.1	386	500	655	2	0	2
04-Jul-06 23:00:00	87.9	383	503	655	0	0	0
05-Jul-06 00:00:00	87.9	255	487	655	0	0	0
05-Jul-06 01:00:00	87.9	122	391	655	0	0	0
05-Jul-06 02:00:00	87.9	123	253	652	0	0	0
05-Jul-06 03:00:00	87.9	124	152	652	0	0	0
05-Jul-06 04:00:00	88.6	123	151	652	0	0	0
05-Jul-06 05:00:00	88.2	123	151	653	0	0	0
05-Jul-06 06:00:00	88.2	124	168	654	0	0	0
05-Jul-06 07:00:00	87.9	163	223	655	0	0	0
05-Jul-06 08:00:00	87.8	282	358	656	0	0	0
05-Jul-06 09:00:00	87.8	372	506	652	0	0	0
05-Jul-06 10:00:00	87.8	388	449	652	0	0	0
05-Jul-06 11:00:00	87.9	386	498	652	0	0	0
05-Jul-06 12:00:00	87.7	386	490	657	0	0	0
05-Jul-06 13:00:00	87.7	385	501	701	0	0	0
05-Jul-06 14:00:00	87.9	388	494	744	0	0	0
05-Jul-06 15:00:00	88.0	389	501	750	0	0	0
05-Jul-06 16:00:00	88.2	389	498	765	0	0	0
05-Jul-06 17:00:00	88.2	389	498	784	0	0	0
05-Jul-06 18:00:00	88.3	389	503	803	0	0	0
05-Jul-06 19:00:00	88.6	389	501	823	35	0	35
05-Jul-06 20:00:00	88.6	387	507	843	71	0	71
05-Jul-06 21:00:00	88.4	390	499	849	44	0	44
05-Jul-06 22:00:00	88.3	390	495	850	1	0	1
05-Jul-06 23:00:00	88.2	389	505	850	0	0	0
06-Jul-06 00:00:00	88.2	300	503	849	0	0	0
06-Jul-06 01:00:00	88.2	291	505	850	0	0	0
06-Jul-06 02:00:00	88.2	287	460	849	0	0	0
06-Jul-06 03:00:00	88.1	147	322	850	0	0	0
06-Jul-06 04:00:00	88.1	118	144	851	0	0	0
06-Jul-06 05:00:00	88.0	121	141	851	0	0	0
06-Jul-06 06:00:00	88.0	187	209	851	0	0	0
06-Jul-06 07:00:00	87.8	252	314	852	0	0	0
06-Jul-06 08:00:00	87.8	361	469	852	0	0	0
06-Jul-06 09:00:00	87.6	370	496	853	0	0	0
06-Jul-06 10:00:00	87.7	371	499	852	0	0	0
06-Jul-06 11:00:00	87.5	375	498	853	0	0	0
06-Jul-06 12:00:00	87.5	392	45	852	0	0	0
06-Jul-06 13:00:00	87.9	390	0	851	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
06-Jul-06 14:00:00	87.9	385	0	852	0	0	0
06-Jul-06 15:00:00	88.0	385	0	850	0	0	0
06-Jul-06 16:00:00	88.1	385	0	851	0	0	0
06-Jul-06 17:00:00	88.0	382	0	850	0	0	0
06-Jul-06 18:00:00	88.0	383	0	852	0	0	0
06-Jul-06 19:00:00	88.1	374	0	851	0	0	0
06-Jul-06 20:00:00	88.0	383	0	852	0	0	0
06-Jul-06 21:00:00	87.7	378	1	853	0	0	0
06-Jul-06 22:00:00	87.4	249	0	854	0	0	0
06-Jul-06 23:00:00	87.3	359	0	852	0	0	0
07-Jul-06 00:00:00	87.2	302	0	851	0	0	0
07-Jul-06 01:00:00	87.3	302	0	852	0	0	0
07-Jul-06 02:00:00	87.7	195	0	852	0	0	0
07-Jul-06 03:00:00	87.7	124	0	852	0	0	0
07-Jul-06 04:00:00	87.8	131	0	852	0	0	0
07-Jul-06 05:00:00	87.7	132	0	852	0	0	0
07-Jul-06 06:00:00	87.9	241	0	852	0	0	0
07-Jul-06 07:00:00	88.0	281	0	852	0	0	0
07-Jul-06 08:00:00	87.9	346	0	852	0	0	0
07-Jul-06 09:00:00	87.8	320	0	854	0	0	0
07-Jul-06 10:00:00	87.8	359	0	855	0	0	0
07-Jul-06 11:00:00	87.2	366	0	855	0	0	0
07-Jul-06 12:00:00	86.8	366	0	854	0	0	0
07-Jul-06 13:00:00	86.9	367	0	854	0	0	0
07-Jul-06 14:00:00	87.2	368	0	854	0	0	0
07-Jul-06 15:00:00	87.2	301	0	852	0	0	0
07-Jul-06 16:00:00	87.3	354	0	852	0	0	0
07-Jul-06 17:00:00	86.7	354	0	852	0	0	0
07-Jul-06 18:00:00	86.8	354	0	852	0	0	0
07-Jul-06 19:00:00	86.9	351	0	851	0	0	0
07-Jul-06 20:00:00	86.7	352	0	851	0	0	0
07-Jul-06 21:00:00	86.6	353	0	851	0	0	0
07-Jul-06 22:00:00	86.0	354	0	851	0	0	0
07-Jul-06 23:00:00	85.8	300	0	852	0	0	0
08-Jul-06 00:00:00	85.6	287	1	852	0	0	0
08-Jul-06 01:00:00	85.4	200	0	853	0	0	0
08-Jul-06 02:00:00	85.5	128	0	853	0	0	0
08-Jul-06 03:00:00	85.4	126	0	853	0	0	0
08-Jul-06 04:00:00	85.5	131	0	853	0	0	0
08-Jul-06 05:00:00	85.3	141	0	853	0	0	0
08-Jul-06 06:00:00	85.4	178	0	852	0	0	0
08-Jul-06 07:00:00	85.7	207	0	852	0	0	0
08-Jul-06 08:00:00	85.4	277	0	851	0	0	0
08-Jul-06 09:00:00	85.7	355	0	850	0	0	0
08-Jul-06 10:00:00	85.6	363	0	854	0	0	0
08-Jul-06 11:00:00	85.4	359	0	856	0	0	0
08-Jul-06 12:00:00	85.5	365	0	857	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
08-Jul-06 13:00:00	85.7	363	0	856	0	0	0
08-Jul-06 14:00:00	85.8	303	0	854	0	0	0
08-Jul-06 15:00:00	85.8	232	0	854	0	0	0
08-Jul-06 16:00:00	85.7	354	0	853	0	0	0
08-Jul-06 17:00:00	85.7	353	0	853	0	0	0
08-Jul-06 18:00:00	85.7	353	0	854	0	0	0
08-Jul-06 19:00:00	85.7	326	0	854	0	0	0
08-Jul-06 20:00:00	85.7	351	0	854	0	0	0
08-Jul-06 21:00:00	85.7	291	0	854	0	0	0
08-Jul-06 22:00:00	85.9	281	0	854	0	0	0
08-Jul-06 23:00:00	86.0	323	0	854	0	0	0
09-Jul-06 00:00:00	86.0	216	0	854	0	0	0
09-Jul-06 01:00:00	85.9	171	0	854	0	0	0
09-Jul-06 02:00:00	85.8	122	0	853	0	0	0
09-Jul-06 03:00:00	85.7	122	0	853	0	0	0
09-Jul-06 04:00:00	85.5	129	0	853	0	0	0
09-Jul-06 05:00:00	85.4	137	0	852	0	0	0
09-Jul-06 06:00:00	85.4	142	0	852	0	0	0
09-Jul-06 07:00:00	85.3	145	0	853	0	0	0
09-Jul-06 08:00:00	85.3	253	0	853	0	0	0
09-Jul-06 09:00:00	85.3	282	0	855	0	0	0
09-Jul-06 10:00:00	85.2	264	0	855	0	0	0
09-Jul-06 11:00:00	85.1	343	27	854	0	0	0
09-Jul-06 12:00:00	85.0	365	60	855	0	0	0
09-Jul-06 13:00:00	85.0	362	114	856	0	0	0
09-Jul-06 14:00:00	85.1	374	167	856	0	0	0
09-Jul-06 15:00:00	85.2	384	263	855	0	0	0
09-Jul-06 16:00:00	85.4	387	346	855	0	0	0
09-Jul-06 17:00:00	85.7	384	399	854	0	0	0
09-Jul-06 18:00:00	85.8	386	403	854	0	0	0
09-Jul-06 19:00:00	85.9	385	411	856	0	0	0
09-Jul-06 20:00:00	85.6	386	414	854	0	0	0
09-Jul-06 21:00:00	85.6	388	510	853	0	0	0
09-Jul-06 22:00:00	85.9	385	506	853	0	0	0
09-Jul-06 23:00:00	85.9	222	509	852	0	0	0
10-Jul-06 00:00:00	85.9	165	466	853	0	0	0
10-Jul-06 01:00:00	85.8	121	365	853	0	0	0
10-Jul-06 02:00:00	85.8	126	289	853	0	0	0
10-Jul-06 03:00:00	85.7	126	240	852	0	0	0
10-Jul-06 04:00:00	85.7	123	195	852	0	0	0
10-Jul-06 05:00:00	85.5	133	205	853	0	0	0
10-Jul-06 06:00:00	85.5	197	267	853	0	0	0
10-Jul-06 07:00:00	85.4	219	351	854	0	0	0
10-Jul-06 08:00:00	85.4	318	420	855	0	0	0
10-Jul-06 09:00:00	85.4	360	484	856	0	0	0
10-Jul-06 10:00:00	85.3	386	476	856	0	0	0
10-Jul-06 11:00:00	85.4	386	507	856	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
10-Jul-06 12:00:00	85.3	384	506	854	0	0	0
10-Jul-06 13:00:00	85.2	380	505	857	0	0	0
10-Jul-06 14:00:00	85.3	382	508	858	0	0	0
10-Jul-06 15:00:00	85.4	384	507	857	0	0	0
10-Jul-06 16:00:00	85.5	386	506	854	0	0	0
10-Jul-06 17:00:00	85.6	385	512	854	0	0	0
10-Jul-06 18:00:00	85.6	382	512	854	0	0	0
10-Jul-06 19:00:00	85.6	383	505	855	0	0	0
10-Jul-06 20:00:00	85.6	385	511	855	0	0	0
10-Jul-06 21:00:00	85.6	382	512	855	0	0	0
10-Jul-06 22:00:00	85.5	382	511	855	0	0	0
10-Jul-06 23:00:00	85.6	383	361	853	0	0	0
11-Jul-06 00:00:00	85.8	384	368	853	0	0	0
11-Jul-06 01:00:00	86.0	317	379	855	0	0	0
11-Jul-06 02:00:00	86.0	255	332	853	0	0	0
11-Jul-06 03:00:00	85.9	199	256	852	0	0	0
11-Jul-06 04:00:00	86.1	166	230	853	0	0	0
11-Jul-06 05:00:00	85.9	197	240	848	0	0	0
11-Jul-06 06:00:00	86.0	281	345	852	0	0	0
11-Jul-06 07:00:00	86.0	244	342	853	0	0	0
11-Jul-06 08:00:00	85.9	315	383	854	0	0	0
11-Jul-06 09:00:00	85.8	358	358	854	0	0	0
11-Jul-06 10:00:00	85.9	374	481	854	0	0	0
11-Jul-06 11:00:00	85.9	387	507	856	0	0	0
11-Jul-06 12:00:00	85.9	386	518	856	0	0	0
11-Jul-06 13:00:00	86.0	389	520	855	0	0	0
11-Jul-06 14:00:00	86.2	391	514	855	0	0	0
11-Jul-06 15:00:00	86.4	386	513	854	0	0	0
11-Jul-06 16:00:00	86.5	386	512	854	0	0	0
11-Jul-06 17:00:00	86.5	390	508	854	0	0	0
11-Jul-06 18:00:00	86.2	390	514	855	0	0	0
11-Jul-06 19:00:00	86.1	389	514	855	0	0	0
11-Jul-06 20:00:00	86.0	389	512	855	0	0	0
11-Jul-06 21:00:00	85.9	390	512	855	0	0	0
11-Jul-06 22:00:00	86.0	391	515	854	0	0	0
11-Jul-06 23:00:00	86.1	242	476	852	0	0	0
12-Jul-06 00:00:00	86.1	222	386	852	0	0	0
12-Jul-06 01:00:00	86.0	124	200	856	0	0	0
12-Jul-06 02:00:00	86.0	126	143	859	0	0	0
12-Jul-06 03:00:00	86.0	126	143	856	0	0	0
12-Jul-06 04:00:00	86.0	126	149	853	0	0	0
12-Jul-06 05:00:00	85.8	126	169	851	0	0	0
12-Jul-06 06:00:00	85.8	154	231	853	0	0	0
12-Jul-06 07:00:00	85.6	189	324	853	0	0	0
12-Jul-06 08:00:00	86.0	314	380	853	0	0	0
12-Jul-06 09:00:00	86.0	386	493	853	0	0	0
12-Jul-06 10:00:00	85.9	388	513	853	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
12-Jul-06 11:00:00	86.0	388	512	853	0	0	0
12-Jul-06 12:00:00	86.0	387	508	853	0	0	0
12-Jul-06 13:00:00	86.1	389	508	854	0	0	0
12-Jul-06 14:00:00	86.1	389	512	854	0	0	0
12-Jul-06 15:00:00	86.2	388	512	854	0	0	0
12-Jul-06 16:00:00	86.2	385	509	854	0	0	0
12-Jul-06 17:00:00	86.0	389	504	855	0	0	0
12-Jul-06 18:00:00	85.8	381	513	855	0	0	0
12-Jul-06 19:00:00	85.8	385	509	855	0	0	0
12-Jul-06 20:00:00	85.9	386	510	845	0	0	0
12-Jul-06 21:00:00	85.7	378	496	855	0	0	0
12-Jul-06 22:00:00	85.8	313	480	853	0	0	0
12-Jul-06 23:00:00	85.8	378	485	854	0	0	0
13-Jul-06 00:00:00	85.8	373	353	852	0	0	0
13-Jul-06 01:00:00	85.8	260	231	851	0	0	0
13-Jul-06 02:00:00	85.6	255	140	852	0	0	0
13-Jul-06 03:00:00	85.5	217	142	854	0	0	0
13-Jul-06 04:00:00	85.5	167	143	854	0	0	0
13-Jul-06 05:00:00	85.4	175	151	854	0	0	0
13-Jul-06 06:00:00	85.4	256	243	853	0	0	0
13-Jul-06 07:00:00	85.4	221	223	853	0	0	0
13-Jul-06 08:00:00	85.3	224	225	853	0	0	0
13-Jul-06 09:00:00	85.5	356	383	853	0	0	0
13-Jul-06 10:00:00	85.4	294	415	854	0	0	0
13-Jul-06 11:00:00	85.4	379	486	853	0	0	0
13-Jul-06 12:00:00	85.5	384	492	855	0	0	0
13-Jul-06 13:00:00	85.8	384	519	855	0	0	0
13-Jul-06 14:00:00	85.5	384	514	855	0	0	0
13-Jul-06 15:00:00	85.7	385	508	852	0	0	0
13-Jul-06 16:00:00	85.9	385	429	848	0	0	0
13-Jul-06 17:00:00	86.0	385	494	854	0	0	0
13-Jul-06 18:00:00	85.8	384	509	854	0	0	0
13-Jul-06 19:00:00	85.6	382	513	855	0	0	0
13-Jul-06 20:00:00	85.6	384	488	856	0	0	0
13-Jul-06 21:00:00	85.6	379	488	854	0	0	0
13-Jul-06 22:00:00	85.7	362	465	854	0	0	0
13-Jul-06 23:00:00	85.8	297	399	853	0	0	0
14-Jul-06 00:00:00	85.9	279	224	853	0	0	0
14-Jul-06 01:00:00	84.7	170	142	852	0	0	0
14-Jul-06 02:00:00	84.6	130	144	851	0	0	0
14-Jul-06 03:00:00	84.3	136	160	852	0	0	0
14-Jul-06 04:00:00	84.3	127	151	851	0	0	0
14-Jul-06 05:00:00	84.3	130	152	852	0	0	0
14-Jul-06 06:00:00	84.6	150	172	852	0	0	0
14-Jul-06 07:00:00	84.8	218	235	852	0	0	0
14-Jul-06 08:00:00	85.9	317	322	852	0	0	0
14-Jul-06 09:00:00	85.8	359	396	852	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
14-Jul-06 10:00:00	86.0	380	487	854	0	0	0
14-Jul-06 11:00:00	86.0	388	517	854	0	0	0
14-Jul-06 12:00:00	86.1	387	509	854	0	0	0
14-Jul-06 13:00:00	86.1	388	508	853	0	0	0
14-Jul-06 14:00:00	86.4	388	508	854	0	0	0
14-Jul-06 15:00:00	86.8	389	513	854	0	0	0
14-Jul-06 16:00:00	86.6	390	508	853	0	0	0
14-Jul-06 17:00:00	86.6	391	514	854	0	0	0
14-Jul-06 18:00:00	86.4	388	510	855	0	0	0
14-Jul-06 19:00:00	86.2	391	508	855	0	0	0
14-Jul-06 20:00:00	86.3	388	515	855	0	0	0
14-Jul-06 21:00:00	86.4	390	512	853	0	0	0
14-Jul-06 22:00:00	86.3	390	516	853	0	0	0
14-Jul-06 23:00:00	86.2	388	506	854	0	0	0
15-Jul-06 00:00:00	86.1	389	511	854	0	0	0
15-Jul-06 01:00:00	86.2	388	512	854	0	0	0
15-Jul-06 02:00:00	86.3	388	517	853	0	0	0
15-Jul-06 03:00:00	86.3	283	398	853	0	0	0
15-Jul-06 04:00:00	86.3	219	218	853	0	0	0
15-Jul-06 05:00:00	86.4	145	143	852	0	0	0
15-Jul-06 06:00:00	86.5	145	141	851	0	0	0
15-Jul-06 07:00:00	86.5	123	139	851	0	0	0
15-Jul-06 08:00:00	86.5	231	242	851	0	0	0
15-Jul-06 09:00:00	86.6	322	362	852	0	0	0
15-Jul-06 10:00:00	86.6	368	487	853	0	0	0
15-Jul-06 11:00:00	86.7	382	497	854	0	0	0
15-Jul-06 12:00:00	86.8	388	506	853	0	0	0
15-Jul-06 13:00:00	87.1	388	514	852	0	0	0
15-Jul-06 14:00:00	87.4	389	511	851	0	0	0
15-Jul-06 15:00:00	88.0	387	513	852	0	0	0
15-Jul-06 16:00:00	87.8	388	514	852	0	0	0
15-Jul-06 17:00:00	87.7	387	517	852	0	0	0
15-Jul-06 18:00:00	87.6	387	516	852	0	0	0
15-Jul-06 19:00:00	87.4	388	514	851	0	0	0
15-Jul-06 20:00:00	87.5	387	516	852	0	0	0
15-Jul-06 21:00:00	87.2	387	512	852	0	0	0
15-Jul-06 22:00:00	87.2	388	515	851	0	0	0
15-Jul-06 23:00:00	87.0	391	514	850	0	0	0
16-Jul-06 00:00:00	87.0	388	515	852	0	0	0
16-Jul-06 01:00:00	86.9	388	489	851	0	0	0
16-Jul-06 02:00:00	86.9	298	430	850	0	0	0
16-Jul-06 03:00:00	86.9	173	150	851	0	0	0
16-Jul-06 04:00:00	86.9	120	140	851	0	0	0
16-Jul-06 05:00:00	87.2	129	147	852	0	0	0
16-Jul-06 06:00:00	87.3	123	143	854	0	0	0
16-Jul-06 07:00:00	87.4	120	143	854	0	0	0
16-Jul-06 08:00:00	87.6	218	237	849	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
16-Jul-06 09:00:00	87.7	261	374	849	0	0	0
16-Jul-06 10:00:00	87.8	361	470	850	0	0	0
16-Jul-06 11:00:00	87.8	384	520	851	12	0	12
16-Jul-06 12:00:00	87.9	383	509	847	23	0	23
16-Jul-06 13:00:00	88.1	383	510	850	34	0	34
16-Jul-06 14:00:00	88.4	384	509	849	45	0	45
16-Jul-06 15:00:00	88.7	382	512	849	56	0	56
16-Jul-06 16:00:00	89.5	384	508	848	67	0	67
16-Jul-06 17:00:00	89.4	384	508	848	81	0	81
16-Jul-06 18:00:00	89.2	382	512	848	89	0	89
16-Jul-06 19:00:00	88.6	384	506	848	80	0	80
16-Jul-06 20:00:00	88.8	383	512	848	38	0	38
16-Jul-06 21:00:00	88.7	382	507	862	0	0	0
16-Jul-06 22:00:00	88.5	386	508	850	0	0	0
16-Jul-06 23:00:00	88.2	296	508	849	0	0	0
17-Jul-06 00:00:00	87.9	228	429	848	0	0	0
17-Jul-06 01:00:00	87.8	210	369	847	0	0	0
17-Jul-06 02:00:00	87.7	181	325	848	0	0	0
17-Jul-06 03:00:00	87.7	128	237	849	0	0	0
17-Jul-06 04:00:00	87.7	147	185	849	0	0	0
17-Jul-06 05:00:00	87.7	196	237	847	0	0	0
17-Jul-06 06:00:00	87.6	254	328	847	0	0	0
17-Jul-06 07:00:00	87.6	220	251	848	0	0	0
17-Jul-06 08:00:00	87.7	235	243	849	0	0	0
17-Jul-06 09:00:00	87.8	324	484	849	0	0	0
17-Jul-06 10:00:00	87.8	312	487	850	0	0	0
17-Jul-06 11:00:00	87.9	316	512	851	0	0	0
17-Jul-06 12:00:00	87.9	312	508	851	0	0	0
17-Jul-06 13:00:00	87.9	312	512	851	0	0	0
17-Jul-06 14:00:00	87.9	312	510	851	2	0	2
17-Jul-06 15:00:00	88.0	346	513	849	29	0	29
17-Jul-06 16:00:00	88.2	386	510	850	55	0	55
17-Jul-06 17:00:00	88.5	372	519	850	82	0	82
17-Jul-06 18:00:00	88.8	381	516	851	56	0	56
17-Jul-06 19:00:00	88.5	384	513	851	21	0	21
17-Jul-06 20:00:00	88.5	383	515	849	0	0	0
17-Jul-06 21:00:00	88.2	385	511	851	0	0	0
17-Jul-06 22:00:00	88.1	361	517	850	0	0	0
17-Jul-06 23:00:00	88.0	375	397	850	0	0	0
18-Jul-06 00:00:00	88.0	289	490	851	0	0	0
18-Jul-06 01:00:00	87.8	180	404	850	0	0	0
18-Jul-06 02:00:00	87.8	139	386	848	0	0	0
18-Jul-06 03:00:00	87.7	120	219	847	0	0	0
18-Jul-06 04:00:00	87.8	119	213	847	0	0	0
18-Jul-06 05:00:00	87.7	121	217	847	0	0	0
18-Jul-06 06:00:00	87.6	126	286	848	0	0	0
18-Jul-06 07:00:00	87.3	146	276	846	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
18-Jul-06 08:00:00	87.3	125	231	850	0	0	0
18-Jul-06 09:00:00	87.5	237	411	849	0	0	0
18-Jul-06 10:00:00	87.6	367	488	850	0	0	0
18-Jul-06 11:00:00	87.7	378	501	851	0	0	0
18-Jul-06 12:00:00	87.8	387	500	852	0	0	0
18-Jul-06 13:00:00	87.8	385	504	852	19	0	19
18-Jul-06 14:00:00	88.1	382	505	852	50	0	50
18-Jul-06 15:00:00	88.3	391	504	850	81	0	81
18-Jul-06 16:00:00	88.7	391	513	849	111	0	111
18-Jul-06 17:00:00	89.2	382	507	848	142	0	142
18-Jul-06 18:00:00	89.3	384	512	848	173	0	173
18-Jul-06 19:00:00	89.5	383	509	848	159	0	159
18-Jul-06 20:00:00	89.7	384	504	847	125	0	125
18-Jul-06 21:00:00	89.4	382	514	847	96	0	96
18-Jul-06 22:00:00	89.2	325	513	847	70	0	70
18-Jul-06 23:00:00	88.9	380	419	848	47	0	47
19-Jul-06 00:00:00	88.8	344	364	845	0	0	0
19-Jul-06 01:00:00	88.8	355	288	844	0	0	0
19-Jul-06 02:00:00	88.7	284	139	844	0	0	0
19-Jul-06 03:00:00	88.6	190	141	844	0	0	0
19-Jul-06 04:00:00	88.5	122	141	847	0	0	0
19-Jul-06 05:00:00	88.6	131	151	846	0	0	0
19-Jul-06 06:00:00	88.6	167	189	846	0	0	0
19-Jul-06 07:00:00	88.5	152	207	847	0	0	0
19-Jul-06 08:00:00	88.5	122	282	848	0	0	0
19-Jul-06 09:00:00	88.4	305	413	848	0	0	0
19-Jul-06 10:00:00	88.6	383	491	848	25	0	25
19-Jul-06 11:00:00	88.7	389	504	848	90	0	90
19-Jul-06 12:00:00	88.9	389	508	847	115	0	115
19-Jul-06 13:00:00	88.9	389	501	848	139	0	139
19-Jul-06 14:00:00	89.0	391	501	848	164	0	164
19-Jul-06 15:00:00	89.1	389	504	847	189	0	189
19-Jul-06 16:00:00	89.4	383	503	847	213	0	213
19-Jul-06 17:00:00	89.8	387	498	846	238	0	238
19-Jul-06 18:00:00	90.1	388	503	844	263	0	263
19-Jul-06 19:00:00	89.8	384	506	844	247	0	247
19-Jul-06 20:00:00	90.3	382	520	845	219	0	219
19-Jul-06 21:00:00	90.2	385	502	845	192	0	192
19-Jul-06 22:00:00	90.1	383	504	845	167	0	167
19-Jul-06 23:00:00	90.1	384	444	844	136	0	136
20-Jul-06 00:00:00	90.0	373	381	824	48	0	48
20-Jul-06 01:00:00	89.9	280	283	845	0	0	0
20-Jul-06 02:00:00	89.8	137	139	844	0	0	0
20-Jul-06 03:00:00	89.8	131	147	844	0	0	0
20-Jul-06 04:00:00	89.7	122	143	843	0	0	0
20-Jul-06 05:00:00	89.7	127	146	843	0	0	0
20-Jul-06 06:00:00	89.5	153	169	845	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
20-Jul-06 07:00:00	89.5	123	148	845	0	0	0
20-Jul-06 08:00:00	89.4	134	229	845	0	0	0
20-Jul-06 09:00:00	89.3	291	382	843	0	0	0
20-Jul-06 10:00:00	89.2	384	496	843	26	0	26
20-Jul-06 11:00:00	89.3	388	504	844	173	0	173
20-Jul-06 12:00:00	89.6	387	502	845	183	0	183
20-Jul-06 13:00:00	89.9	386	505	846	193	0	193
20-Jul-06 14:00:00	90.1	386	506	848	206	0	206
20-Jul-06 15:00:00	90.3	388	506	846	212	0	212
20-Jul-06 16:00:00	90.6	388	506	844	222	0	222
20-Jul-06 17:00:00	90.5	340	492	843	241	104	138
20-Jul-06 18:00:00	90.7	333	452	843	251	104	148
20-Jul-06 19:00:00	90.6	364	495	844	268	104	164
20-Jul-06 20:00:00	90.7	361	484	845	255	104	152
20-Jul-06 21:00:00	90.5	377	508	844	235	0	235
20-Jul-06 22:00:00	90.5	378	506	844	215	0	215
20-Jul-06 23:00:00	90.3	376	509	842	195	0	195
21-Jul-06 00:00:00	90.2	378	512	844	176	0	176
21-Jul-06 01:00:00	90.3	296	403	842	138	0	138
21-Jul-06 02:00:00	90.1	214	212	842	0	0	0
21-Jul-06 03:00:00	90.0	121	142	844	0	0	0
21-Jul-06 04:00:00	89.8	121	141	844	0	0	0
21-Jul-06 05:00:00	89.8	121	143	845	0	0	0
21-Jul-06 06:00:00	89.7	168	194	844	0	0	0
21-Jul-06 07:00:00	89.6	221	191	844	0	0	0
21-Jul-06 08:00:00	89.5	366	352	847	0	0	0
21-Jul-06 09:00:00	89.4	387	429	847	60	0	60
21-Jul-06 10:00:00	89.3	387	512	846	154	0	154
21-Jul-06 11:00:00	89.2	388	501	847	172	0	172
21-Jul-06 12:00:00	89.1	388	504	848	185	0	185
21-Jul-06 13:00:00	89.3	388	502	848	197	0	197
21-Jul-06 14:00:00	89.4	387	502	848	209	0	209
21-Jul-06 15:00:00	89.6	388	510	848	222	0	222
21-Jul-06 16:00:00	89.8	387	507	845	234	0	234
21-Jul-06 17:00:00	89.9	389	500	847	246	0	246
21-Jul-06 18:00:00	89.9	391	503	848	259	0	259
21-Jul-06 19:00:00	90.1	384	503	847	238	0	238
21-Jul-06 20:00:00	90.2	387	502	846	215	0	215
21-Jul-06 21:00:00	90.0	387	506	847	192	0	192
21-Jul-06 22:00:00	90.0	388	502	846	174	0	174
21-Jul-06 23:00:00	89.8	385	505	846	163	0	163
22-Jul-06 00:00:00	89.7	388	510	845	135	0	135
22-Jul-06 01:00:00	89.6	314	338	846	79	0	79
22-Jul-06 02:00:00	89.6	218	246	843	0	0	0
22-Jul-06 03:00:00	89.4	131	200	845	0	0	0
22-Jul-06 04:00:00	89.4	130	201	845	0	0	0
22-Jul-06 05:00:00	89.3	125	200	845	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
22-Jul-06 06:00:00	89.2	176	200	844	0	0	0
22-Jul-06 07:00:00	89.2	125	201	844	0	0	0
22-Jul-06 08:00:00	89.2	222	223	845	0	0	0
22-Jul-06 09:00:00	89.2	330	381	846	0	0	0
22-Jul-06 10:00:00	89.1	327	427	847	89	0	89
22-Jul-06 11:00:00	89.0	383	511	850	100	0	100
22-Jul-06 12:00:00	88.9	384	503	848	112	0	112
22-Jul-06 13:00:00	88.8	387	503	849	124	0	124
22-Jul-06 14:00:00	88.9	386	504	848	136	0	136
22-Jul-06 15:00:00	89.0	384	508	851	148	0	148
22-Jul-06 16:00:00	89.3	384	505	850	160	0	160
22-Jul-06 17:00:00	89.4	385	498	850	172	0	172
22-Jul-06 18:00:00	89.4	387	511	850	177	0	177
22-Jul-06 19:00:00	89.5	386	510	849	170	0	170
22-Jul-06 20:00:00	89.6	386	500	848	164	0	164
22-Jul-06 21:00:00	89.8	385	504	847	157	0	157
22-Jul-06 22:00:00	90.0	386	512	847	172	0	172
22-Jul-06 23:00:00	89.8	386	505	848	188	0	188
23-Jul-06 00:00:00	89.7	351	487	846	146	0	146
23-Jul-06 01:00:00	89.6	220	297	846	1	0	1
23-Jul-06 02:00:00	89.4	159	302	846	0	0	0
23-Jul-06 03:00:00	89.4	137	201	844	0	0	0
23-Jul-06 04:00:00	89.5	129	200	846	0	0	0
23-Jul-06 05:00:00	89.4	170	201	845	0	0	0
23-Jul-06 06:00:00	89.3	191	200	846	0	0	0
23-Jul-06 07:00:00	89.2	164	200	847	0	0	0
23-Jul-06 08:00:00	89.1	241	248	848	0	0	0
23-Jul-06 09:00:00	89.2	375	425	849	0	0	0
23-Jul-06 10:00:00	89.1	383	501	847	117	0	117
23-Jul-06 11:00:00	89.0	384	503	848	129	0	129
23-Jul-06 12:00:00	89.0	383	501	849	141	0	141
23-Jul-06 13:00:00	89.0	385	501	850	153	0	153
23-Jul-06 14:00:00	89.0	386	505	850	165	0	165
23-Jul-06 15:00:00	89.2	386	500	849	177	0	177
23-Jul-06 16:00:00	89.4	386	502	847	189	0	189
23-Jul-06 17:00:00	89.5	386	502	848	201	0	201
23-Jul-06 18:00:00	89.5	385	502	848	187	0	187
23-Jul-06 19:00:00	89.5	386	499	847	155	0	155
23-Jul-06 20:00:00	89.2	385	503	848	123	0	123
23-Jul-06 21:00:00	89.1	386	503	835	102	0	102
23-Jul-06 22:00:00	89.0	369	464	845	84	0	84
23-Jul-06 23:00:00	88.9	370	479	847	33	0	33
24-Jul-06 00:00:00	88.9	374	316	848	47	0	47
24-Jul-06 01:00:00	88.7	330	229	847	0	0	0
24-Jul-06 02:00:00	88.5	195	231	847	0	0	0
24-Jul-06 03:00:00	88.4	180	230	848	0	0	0
24-Jul-06 04:00:00	88.5	168	230	847	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
24-Jul-06 05:00:00	88.3	145	231	847	0	0	0
24-Jul-06 06:00:00	88.3	174	231	846	0	0	0
24-Jul-06 07:00:00	88.3	120	240	847	0	0	0
24-Jul-06 08:00:00	88.4	203	405	847	0	0	0
24-Jul-06 09:00:00	88.5	201	505	847	0	0	0
24-Jul-06 10:00:00	88.4	202	505	847	0	0	0
24-Jul-06 11:00:00	88.3	339	494	850	0	0	0
24-Jul-06 12:00:00	88.3	384	509	851	15	0	15
24-Jul-06 13:00:00	88.3	382	504	851	35	0	35
24-Jul-06 14:00:00	88.5	382	508	850	54	0	54
24-Jul-06 15:00:00	88.5	383	504	852	73	0	73
24-Jul-06 16:00:00	88.6	383	508	852	92	0	92
24-Jul-06 17:00:00	88.8	381	501	850	112	0	112
24-Jul-06 18:00:00	88.9	384	513	849	131	0	131
24-Jul-06 19:00:00	88.9	382	505	849	131	0	131
24-Jul-06 20:00:00	88.9	386	503	848	94	0	94
24-Jul-06 21:00:00	88.8	383	507	848	56	0	56
24-Jul-06 22:00:00	88.8	383	364	848	23	0	23
24-Jul-06 23:00:00	89.1	313	218	848	0	0	0
25-Jul-06 00:00:00	89.2	285	222	848	0	0	0
25-Jul-06 01:00:00	89.2	322	217	849	0	0	0
25-Jul-06 02:00:00	89.0	279	206	848	0	0	0
25-Jul-06 03:00:00	88.9	208	200	848	0	0	0
25-Jul-06 04:00:00	88.9	142	201	848	0	0	0
25-Jul-06 05:00:00	88.9	131	200	848	0	0	0
25-Jul-06 06:00:00	88.7	227	197	848	0	0	0
25-Jul-06 07:00:00	88.4	285	278	849	0	0	0
25-Jul-06 08:00:00	88.2	374	365	849	0	0	0
25-Jul-06 09:00:00	88.3	382	436	849	0	0	0
25-Jul-06 10:00:00	88.3	386	506	849	14	0	14
25-Jul-06 11:00:00	88.3	384	506	849	67	0	67
25-Jul-06 12:00:00	88.3	382	508	849	90	0	90
25-Jul-06 13:00:00	88.6	387	514	849	105	0	105
25-Jul-06 14:00:00	88.8	384	512	850	121	0	121
25-Jul-06 15:00:00	88.9	385	511	850	137	0	137
25-Jul-06 16:00:00	89.2	387	513	852	152	0	152
25-Jul-06 17:00:00	89.2	386	508	848	168	0	168
25-Jul-06 18:00:00	89.3	387	514	848	183	0	183
25-Jul-06 19:00:00	89.4	385	502	847	199	0	199
25-Jul-06 20:00:00	89.3	386	504	847	168	0	168
25-Jul-06 21:00:00	89.1	386	510	848	127	0	127
25-Jul-06 22:00:00	88.9	382	512	848	87	0	87
25-Jul-06 23:00:00	88.7	361	512	848	54	0	54
26-Jul-06 00:00:00	88.7	223	511	848	15	0	15
26-Jul-06 01:00:00	88.8	218	513	848	15	0	15
26-Jul-06 02:00:00	88.9	125	518	848	15	0	15
26-Jul-06 03:00:00	88.9	122	509	848	7	0	7

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
26-Jul-06 04:00:00	89.0	120	512	848	0	0	0
26-Jul-06 05:00:00	89.1	120	510	847	0	0	0
26-Jul-06 06:00:00	89.0	179	490	848	0	0	0
26-Jul-06 07:00:00	88.9	196	379	849	0	0	0
26-Jul-06 08:00:00	88.8	213	458	850	57	0	57
26-Jul-06 09:00:00	88.8	204	474	849	76	0	76
26-Jul-06 10:00:00	88.8	211	520	850	97	0	97
26-Jul-06 11:00:00	88.9	211	511	851	121	0	121
26-Jul-06 12:00:00	88.9	385	422	851	0	0	0
26-Jul-06 13:00:00	88.9	387	516	851	64	0	64
26-Jul-06 14:00:00	89.1	384	516	850	58	0	58
26-Jul-06 15:00:00	89.4	389	511	849	185	0	185
26-Jul-06 16:00:00	89.4	387	514	849	184	0	184
26-Jul-06 17:00:00	89.5	388	517	848	183	0	183
26-Jul-06 18:00:00	89.5	388	525	847	182	0	182
26-Jul-06 19:00:00	89.6	386	516	848	181	0	181
26-Jul-06 20:00:00	89.5	385	505	848	180	0	180
26-Jul-06 21:00:00	89.3	385	506	848	179	0	179
26-Jul-06 22:00:00	89.2	385	514	849	178	0	178
26-Jul-06 23:00:00	89.0	283	404	850	84	0	84
27-Jul-06 00:00:00	88.9	205	403	850	0	0	0
27-Jul-06 01:00:00	89.0	201	251	849	0	0	0
27-Jul-06 02:00:00	89.1	200	250	848	0	0	0
27-Jul-06 03:00:00	89.2	142	250	848	0	0	0
27-Jul-06 04:00:00	89.2	160	253	847	0	0	0
27-Jul-06 05:00:00	89.3	155	247	846	0	0	0
27-Jul-06 06:00:00	89.2	237	248	847	0	0	0
27-Jul-06 07:00:00	89.1	280	364	848	0	0	0
27-Jul-06 08:00:00	89.1	383	398	849	0	0	0
27-Jul-06 09:00:00	89.2	383	399	849	26	0	26
27-Jul-06 10:00:00	89.1	384	408	849	47	0	47
27-Jul-06 11:00:00	89.0	384	398	849	67	0	67
27-Jul-06 12:00:00	89.2	385	407	850	88	0	88
27-Jul-06 13:00:00	89.5	382	481	851	108	0	108
27-Jul-06 14:00:00	89.3	382	502	852	129	0	129
27-Jul-06 15:00:00	89.4	382	502	846	149	0	149
27-Jul-06 16:00:00	89.3	383	502	850	170	0	170
27-Jul-06 17:00:00	89.3	380	503	849	164	0	164
27-Jul-06 18:00:00	89.4	385	502	848	150	0	150
27-Jul-06 19:00:00	89.4	383	504	847	137	0	137
27-Jul-06 20:00:00	89.5	382	506	847	123	0	123
27-Jul-06 21:00:00	89.3	382	503	847	110	0	110
27-Jul-06 22:00:00	89.2	383	505	846	96	0	96
27-Jul-06 23:00:00	89.0	237	501	847	75	0	75
28-Jul-06 00:00:00	89.0	209	295	848	0	0	0
28-Jul-06 01:00:00	89.0	137	200	848	0	0	0
28-Jul-06 02:00:00	88.9	134	199	848	0	0	0

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
28-Jul-06 03:00:00	88.8	120	200	852	0	0	0
28-Jul-06 04:00:00	88.8	121	202	852	0	0	0
28-Jul-06 05:00:00	88.9	126	201	848	0	0	0
28-Jul-06 06:00:00	88.9	223	199	848	0	0	0
28-Jul-06 07:00:00	88.9	246	232	848	0	0	0
28-Jul-06 08:00:00	89.0	222	215	848	0	0	0
28-Jul-06 09:00:00	89.0	315	256	848	0	0	0
28-Jul-06 10:00:00	89.1	310	260	848	0	0	0
28-Jul-06 11:00:00	89.1	311	260	849	0	0	0
28-Jul-06 12:00:00	89.3	313	258	849	0	0	0
28-Jul-06 13:00:00	89.5	310	261	848	13	0	13
28-Jul-06 14:00:00	89.5	311	262	848	28	0	28
28-Jul-06 15:00:00	89.7	355	259	848	43	0	43
28-Jul-06 16:00:00	89.5	384	259	848	57	0	57
28-Jul-06 17:00:00	89.5	387	259	848	66	0	66
28-Jul-06 18:00:00	89.4	385	262	848	68	0	68
28-Jul-06 19:00:00	89.4	387	258	841	71	0	71
28-Jul-06 20:00:00	89.2	384	257	826	74	0	74
28-Jul-06 21:00:00	89.2	384	259	849	77	0	77
28-Jul-06 22:00:00	89.1	384	260	848	79	0	79
28-Jul-06 23:00:00	89.1	386	260	849	82	0	82
29-Jul-06 00:00:00	89.0	389	262	849	85	0	85
29-Jul-06 01:00:00	89.1	361	259	849	45	0	45
29-Jul-06 02:00:00	88.8	221	260	848	0	0	0
29-Jul-06 03:00:00	88.8	146	258	847	0	0	0
29-Jul-06 04:00:00	88.7	124	259	847	0	0	0
29-Jul-06 05:00:00	88.8	120	258	847	0	0	0
29-Jul-06 06:00:00	89.0	154	261	847	0	0	0
29-Jul-06 07:00:00	89.1	154	258	846	0	0	0
29-Jul-06 08:00:00	89.0	225	260	847	0	0	0
29-Jul-06 09:00:00	89.0	302	260	849	35	0	35
29-Jul-06 10:00:00	89.1	376	260	850	53	0	53
29-Jul-06 11:00:00	89.1	388	260	850	59	0	59
29-Jul-06 12:00:00	89.1	388	258	851	66	0	66
29-Jul-06 13:00:00	89.2	388	259	850	72	0	72
29-Jul-06 14:00:00	89.5	387	261	851	78	0	78
29-Jul-06 15:00:00	89.7	385	260	850	85	0	85
29-Jul-06 16:00:00	89.7	387	260	850	91	0	91
29-Jul-06 17:00:00	89.6	384	260	849	98	0	98
29-Jul-06 18:00:00	89.6	388	260	848	98	0	98
29-Jul-06 19:00:00	89.6	388	260	848	96	0	96
29-Jul-06 20:00:00	89.5	388	260	848	94	0	94
29-Jul-06 21:00:00	89.4	390	261	848	92	0	92
29-Jul-06 22:00:00	89.3	386	260	845	90	0	90
29-Jul-06 23:00:00	89.2	387	260	851	88	0	88
30-Jul-06 00:00:00	89.1	387	262	850	86	0	86
30-Jul-06 01:00:00	89.1	383	261	849	84	0	84

	Expected CR-1&2 Derates w/o Modular Cooling Towers						
MCT Aux Power =	1,969						
					Totals		
		Unit Loads (MW)			26,338	414	25,924
Date & Time	Inlet Temp. (deg F)	CR 1	CR 2	CR 3	Total Expected Derate w/o Modular Towers (MW)	Actual Derate (MW)	Gross Avoided Derate (MW)
30-Jul-06 02:00:00	89.1	287	262	848	21	0	21
30-Jul-06 03:00:00	88.7	198	259	848	0	0	0
30-Jul-06 04:00:00	88.6	118	260	848	0	0	0
30-Jul-06 05:00:00	89.0	125	262	848	0	0	0
30-Jul-06 06:00:00	89.0	138	260	848	0	0	0
30-Jul-06 07:00:00	89.0	136	261	847	0	0	0
30-Jul-06 08:00:00	89.1	235	259	847	0	0	0
30-Jul-06 09:00:00	89.2	365	259	847	0	0	0
30-Jul-06 10:00:00	89.2	384	260	846	24	0	24
30-Jul-06 11:00:00	89.4	383	261	845	65	0	65
30-Jul-06 12:00:00	89.5	383	259	849	67	0	67
30-Jul-06 13:00:00	89.6	382	260	850	80	0	80
30-Jul-06 14:00:00	89.8	383	258	849	81	0	81
30-Jul-06 15:00:00	90.1	381	228	848	115	0	115
30-Jul-06 16:00:00	90.3	381	359	848	150	0	150
30-Jul-06 17:00:00	90.0	385	462	849	146	0	146
30-Jul-06 18:00:00	89.7	382	471	850	143	0	143
30-Jul-06 19:00:00	89.7	382	474	851	140	0	140
30-Jul-06 20:00:00	89.4	380	477	851	136	0	136
30-Jul-06 21:00:00	89.3	384	476	851	133	0	133
30-Jul-06 22:00:00	89.2	383	481	851	129	0	129
30-Jul-06 23:00:00	89.1	374	479	851	126	0	126
31-Jul-06 00:00:00	89.0	223	471	850	122	0	122

RESUME OF THOMAS A. HEWSON JR.

PROFESSIONAL EXPERIENCE

1981-Present **Energy Ventures Analysis, Inc.**
Principal

Responsible for power industry market studies. Provides regular power industry forecasts of future electricity demand growth, generation mix, environmental compliance and production cost changes for Fuelcast subscribers and individual client studies. Completed numerous studies examining the effect of future environmental regulation and utility deregulation on fuel prices, supplier capacity decisions (new, repower, retire), generation/environmental technology choice, wholesale electric prices and emission allowance values. Provided market assessments for new fuel, generation and pollution control technologies. Directed industrial utility group examining repowering technology options, costs and risks. Completes studies on renewable power options, costs, incentives and price impacts. Performs assessments of electricity demand, energy conservation potential and alternative energy charge frameworks for power consumers.

Responsible for corporate emission allowance forecasts and assessments. Provides ongoing forecasts of emission trading market prices and fundamentals of existing Acid Rain SO2 market, seasonal NOx market, CAIR, RGGI and individual state new source offset markets. Assesses future market trading values for mercury and carbon dioxide. Evaluates wide range of state legislative multi-pollutant proposals and their effect on regional production costs, state GDP, and environmental benefits. Engaged in developing new rules and regulations to expand existing emission allowance trading markets to include non-traditional sources (e.g. mobile sources).

Directs technical feasibility and environmental permitting studies. Expert in electric utility repowering technologies, fuel upgrading and environmental control technologies. Work includes several plant specific analyses on the costs of reducing SO2 emissions through allowance purchases, switching to lower sulfur fuels, least emission dispatching, plant retirements, repowering and FGD scrubber retrofits for all major coal and oil fired utility stations. Examined feasibility/costs of hazardous waste treatment/disposal for all major industrial waste streams in Louisiana.

1976- 1981 **Energy and Environmental Analysis, Inc.**
Project Manager

Responsible for environmental and regulatory analysis. Examined, for governmental and industrial clients, the requirements and associated impacts on current industrial practices of the Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, Toxic Substances Control Act, Safe Drinking Water Act, Fuel Use Act, Natural Gas Act, Natural Gas Policy Act, Surface Mining and Reclamation Act and Occupational Safety and Health Act. Results of these policy, economic and technical analyses have been used for Congressional hearings, EPA rulemaking, court testimony, industrial policies, administrative hearings and permit negotiations. Developed Federal and state regulatory compliance strategies for the Department of Energy and several industrial clients. On behalf of several clients, he has applied for construction, NPDES, air, solid waste, hazardous waste, water use and land use permits.

Responsible for solid waste/hazardous waste management analyses. Evaluations have included analyses of solid waste and hazardous waste treatment/disposal options for the fertilizer, fermentation ethanol, petrochemical, inorganic chemical, electric utility, synthetic fuel, pulp and paper and mineral processing industries.

Publications
Mr. Hewson has presented and published several papers on the electric utility industry and emission allowance markets. Also co-author on two papers on innovative wastewater treatment technologies.

Educational Background
1976 B.S.E. (Civil Engineering), Princeton University.

Mr. Hewson was appointed for a 2-year term as a Member of the Alexandria Environmental Policy Commission in 2005. He served as Commission Vice Chairman in 2006 until his term expired in January 2007.

Resume

PATRICIA W. MERCHANT, CPA

Office of Public Counsel
Room 812, 111 West Madison Street
Tallahassee, Florida 32399-1400

Phone: 850-487-8245
Fax: 850-488-4491
E-mail: merchant.tricia@leg.state.fl.us

Professional Experience:

March, 2005 to Present

Office of Public Counsel – Senior Legislative Analyst

In my current position, I perform financial and accounting analysis and reviews, and provide testimony, as required, involving utility filings before the Florida Public Service Commission (or other jurisdictions) as an advocate for the Citizens of the State of Florida.

1981 to February, 2005 - Florida Public Service Commission

2000 to February, 2005

Public Utilities Supervisor – File and Suspend Rate Case Section, Bureau of Rate Filings, Division of Economic Regulation

In this capacity I was supervised 5 to 8 regulatory professionals. This section performed financial, accounting, engineering and rate review and evaluation of rate proceedings for large water and wastewater utilities, as well as electric and gas utilities regulated by the Commission. The types of cases included file and suspend rate cases, limited proceedings, overearning investigations, annual report reviews, service availability and tariff filings, rulemaking, and customer complaints. The section reviewed utility filings, requested and reviewed Commission staff audits, and generated and analyzed discovery requests. I coordinated and prepared staff recommendations to the Commission for agenda conferences. I reviewed the analytical work and edited the written documents of all analysts in this section for proper regulatory theory, grammar and accuracy. I also made presentations to customer groups at Commission staff customer meetings for the rate proceedings to which I was assigned. We presented recommendations at agenda conferences, providing responses to comments and questions by other parties and Commissioners. I also prepared and presented testimony, and assisted in the preparation of cross-examination questions for depositions and formal hearings. Additionally, I provided training in regulatory theory for new staff and provided training on regulatory and accounting issues for other analysts at the Commission.

1989 – 2000

Regulatory Analyst Supervisor, Accounting Section, Bureau of Economic Regulation, Division of Water and Wastewater

I supervised 5-7 regulatory accounting analysts. This section performed the same job activities as above specifically for the larger Commission regulated Class A and B water and wastewater companies.

1983 – 1989
Regulatory Analyst – Accounting Bureau, Division of Water and Wastewater

As an accounting analyst, I performed the same job activities as described above for water and wastewater companies in a non-supervisory role.

1981 – 1983

Public Utilities Auditor, Division of Auditing and Financial Analysis

As an auditor in the Tallahassee district of the Commission, I performed financial and accounting audits of electric, gas, telephone, water and wastewater utilities under the Commission's jurisdiction.

Education and Professional Licenses

1981 Bachelor of Science with a major in accounting from Florida State University

1983 Received a Certified Public Accountant license in Florida

List of Cases in which Testimony was Submitted

Dockets Before the Florida Public Service Commission:

050958-EI – Petition for approval of new environmental program for cost recovery through Environmental Cost Recovery Clause by Tampa Electric Company. (testified at hearing)

060658-EI - Petition on Behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to Refund Customers $143 million. (filed testimony stipulated into record)

060362-EI - Petition to Recover Natural Gas Storage Project Costs through Fuel Cost Recovery Clause, by Florida Power & Light Company. (testified at hearing)

050045-EI - Petition for Rate Increase by Florida Power & Light Company. (filed testimony, deposed, case settled prior to hearing)

991643-SU - Application for Increase in Wastewater Rates in Seven Springs System in Pasco County by Aloha Utilities, Inc. (testified at hearing)

971663-WS - Application of Florida Cities Water Company, Inc. for a limited proceeding to recover environmental litigation costs. (all testimony and exhibits stipulated into record without hearing)

940847-WS - Application of Ortega Utility Company for increased water and wastewater rates. (testified at hearing)

911082-WS - Water and Wastewater Rule Revisions to Chapter 25-30, Florida Administrative Code. (testified at hearing)

881030-WU - Investigation of Sunshine Utilities of Central Florida rates for possible over earnings. (testified at hearing)

850151-WS - Application of Marco Island Utilities, Inc. for increased water and wastewater rates. (testified at hearing)

850031-WS - Application of Orange/Osceola Utilities, Inc. for increased water and wastewater rates in Osceola County (testified at hearing)

840047-WS - Application of Poinciana Utilities, Inc. for increased water and wastewater rates (testified at hearing)

Cases Before the Division of Administrative Hearings:

97-2485RU - Aloha Utilities, Inc., and Florida Waterworks Association, Inc., Petitioners, vs. Public Service Commission, Respondents, and Citizens of the State of Florida, Office of Public Counsel, Intervenors (deposed and testified at hearing)

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060162-EI Exhibit No. 10
Company/ OPC
Witness: Patricia W. Merchant (PWM-2)
Date: 05-01-07

PEF Earnings Analysis
Adjusted for Inclusion of Modular Cooling Towers in Base Rates
As of 12/1/2006

Docket No. 060162-EI
Adjusted ROR for PEF
Exhibit ___ (PWM-2)

Cost of Capital - Per PEF 13-Month Average	FPSC Adjusted	% to Total	Mid point Cost Rate	Weighted Cost
Common Equity-Mid Point	2,626,115,733	60.35%	11.75%	7.09%
Preferred Stock	19,963,104	0.46%	0.0451	0.02%
Long Term Debt	1,288,684,378	29.61%	5.74%	1.70%
Short Term Debt	1	0.00%	0.00%	0.00%
Customer Deposits	89,597,519	2.06%	6.21%	0.13%
Customer Dep. Inactive	409,176	0.01%	0.00%	0.00%
Deferred Income Tax	311,003,361	7.15%	0.00%	0.00%
ITC-Equity	10,779,316	0.25%	11.69%	0.03%
ITC-Debt	5,249,706	0.12%	5.74%	0.01%
Total	4,351,802,294	100.00%		8.97%

Range of Rate of Return on Equity: 10.75% to 12.75%

Average Rate of Return (Jurisdictional)	Jurisdictional FPSC Adjusted	2006 Estimated Mod. Cooling Tower Costs Per ECRC	Jurisdictional OPC Adjusted ROR
Net Operating Income	$371,023,261		
Less: Modular Cooling Tower (MCT) Costs			
O&M Expenses (2)		$4,564,195	
Depreciation Expense (2)		$37,196	
Property Taxes (2)		$3,210	
Total Expenses for MCT Costs Before Tax Effect		$4,604,601	
Tax Impact of Shifting Expenses to Base Rates	38.58%	-$1,776,225	
Total Expenses for MCT Costs Including Tax Effect		$2,828,376	
Jurisdictional Factor Net (2)		0.94287	
Jurisdictional Expense Adjustment		$2,666,791	
OPC Adjusted NOI			$368,356,470
Rate Base (1) and (2)	$4,351,802,294	$253,954	
Jurisdictional Factor Net (2)		0.93753	
Jurisdictional Rate Base Adjustment		$238,090	
OPC Adjusted Rate Base			$4,351,564,204
Average Overall Rate of Return	8.53%		8.46%
Achieved Rate of Return on Equity			10.91%
Achieved Rate of Return on Equity per 2006 Surveillance Report			11.00%
Reduction in ROE from Absorbing Modular Cooling Costs in 2006			**0.09%**

Notes:
(1) Source: December 31, 2006 Rate of Return Report filed with Commission staff, dated February 14, 2007 (Schedule 4 p 2 of 2).
(2) Source: Direct testimony of J. Portuondo in the ECRC Docket No. 060007-EI, Forms 42-5E, 42-6E, and 42-8E, page 11 of 11, filed August 4, 2006.

2. Bulk product piping that is in contact with the soil shall have secondary containment.

3. Remote fill piping that is in contact with the soil shall have secondary containment.

4. The following integral piping systems are exempt from the requirements for secondary containment:

a. Integral piping that is in contact with the soil, and that is connected to storage tanks containing high viscosity regulated substances; and

b. Vertical fill pipes equipped with a drop tube.

Specific Authority 376.303 FS.
Law Implemented 376.303 FS.
History--New 12-10-90, Amended 5-4-92, Formerly 17-761.500, Amended 9-30-96, 7-13-98.

62-761.510 Performance Standards for Category-A and Category-B Storage Tank Systems.

(1) General. This section provides deadlines for Category-A and Category-B storage tank systems to meet the standards for Category-C storage tank systems in accordance with Rule 62-761.500, F.A.C.

(a) Installation:

1. Installation shall be completed by the deadlines specified in Table UST and Table AST. However, if installation or upgrade activities are initiated before the deadlines, work can continue after the deadlines, provided that all work is completed within 90 days of:

a. Contract execution; or

b. Receipt of construction approval or permits.

2. Installation is considered to have begun if:

a. All federal, state, and local approvals or permits have been obtained or applied for to begin physical construction for installation of the system; or

b. Contractual obligations have been made for installation of the system which cannot be canceled or modified without substantial economic loss, provided that such obligations are pursued diligently in good faith to achieve the requirements of this rule.

(b) By December 31, 1998:

1. All pressurized small diameter piping systems connected to dispensers shall have shear valves or emergency shutoff valves installed in accordance with Rule 62-761.500(4)(c), F.A.C.

2. Cathodic protection test stations shall be installed in accordance with Rule 62-761.500(1)(f)1. and (2)(b)2. F.A.C., for cathodically protected UST or AST systems without test stations.

3. Fillboxes shall be color coded in accordance with Rule 62-761.500(2)(d)1., F.A.C.

4. ASTs that have been reinstalled as USTs, and USTs that have been reinstalled as ASTs, shall meet the requirements of Rule 62-761.500, F.A.C.

(c) After July 13, 1998, a closure assessment shall be performed in accordance with Rule 62-761.800(4), F.A.C., before the installation of dispenser liners, piping sumps, or secondary containment of tanks and integral piping.

(d) Valves meeting the requirements of Section 2-1.7 of NFPA 30A, shall be installed by January 13, 1999 on any storage tank system located at an elevation that produces a gravity head on the dispenser or on small diameter piping.

(e) Small diameter piping transporting regulated substances over surface waters of the state shall have secondary containment by December 31, 2004.

(2) Underground storage tank systems.

(a) UST Category-A single-walled tanks or underground single-walled piping shall be considered to be protected from corrosion if the tank or piping was constructed with corrosion resistant materials, initially installed with cathodic protection, or had cathodic protection or internal lining installed before June 30, 1992.

(b) UST Category-B systems.

1. All tanks containing pollutants, installed or constructed at a facility after June 30, 1992, shall have secondary containment.

2. All tanks containing hazardous substances, installed or constructed at a facility after January 1, 1991, shall have secondary containment.

(c) Small diameter integral piping in contact with the soil that is connected to UST systems shall have secondary containment if installed after December 10, 1990.

(d) By December 31 of the appropriate year shown in Table UST below, all storage tank systems shall meet the performance standards of Rule 62-761.500, F.A.C., or be permanently closed in accordance with Rule 62-761.800(3), F.A.C.

TABLE UST

Year Tank or Integral Piping Installed	1989	1992	1995	1998	2004	2009
+Before 1970	O	B		ACFL	D	E
+1970 - 1975		SBL		ACF	D	E
+1976 - 1980		B	SL	ACF	D	E
+1981 - 09/01/84		B		ACFL	D	E
+09/02/84 – 06/30/92		B		ACFL	D	E
+Other*		B		ACFL	D	E

Key to Table UST

* = All systems with a capacity between 110 gallons and 550 gallons, all marine fueling facilities as defined in Section 376.031, F.S., and those systems of greater than 550 gallon capacity that use less than 1,000 gallons per month or 10,000 gallons per year.

A =

(1) Small diameter piping that was protected from corrosion by June 30, 1992, shall have:

(a) For pressurized piping, line leak detectors with automatic shutoff, or flow restriction in accordance with Rule 62-761.640(3)(d), F.A.C.; or

(b) For suction integral piping:

1. Secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C.;

2. A single check valve installed in accordance with Rule 62-761.610(4)(a)3., F.A.C.;

3. An annual line tightness test in accordance with Rule 62-761.610(4)(a)1., F.A.C.; or

4. External monthly monitoring or release detection in accordance with Rule 62-761.610(4)(a)1.b., F.A.C.

(2) Bulk product piping in contact with soil shall be upgraded with secondary containment unless the piping is:

(a) Constructed of corrosion resistant materials or upgraded with cathodic protection; and

(b) Tested on an annual basis in accordance with API RP 1110, ASME B31.4, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C.

B = Vehicular fuel petroleum storage tank systems shall be upgraded with spill containment.

C = Secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C., shall be required for the following:

(1) Concrete storage tanks;

(2) Hazardous substance storage tank systems; and

(3) For pollutant storage tank systems, the storage tank or small diameter piping not protected from corrosion by June 30, 1992.

D = (1) Secondary containment shall be installed for small diameter piping extending over surface waters.

(2) Secondary containment for remote fill-pipes associated with Category-A and Category-B systems.

E = Pollutant storage tanks and small diameter piping protected from corrosion on or before June 30, 1992, and all manifolded piping, shall be upgraded with secondary containment.

F =

(1) Storage tank systems, excluding vehicular fuel petroleum storage tank systems, shall be upgraded with spill containment, dispenser liners (as applicable), and overfill protection.

(2) Unless contained within secondary containment, swing-joints and flex-connectors that are not protected from corrosion shall be protected from corrosion. Facilities that have pressurized small diameter piping and that have not met the foregoing standard on or before July 13, 1998 shall protect the submersible turbine pump from corrosion or provide corrosion protection for the submersible turbine pump if the pump is not installed within secondary containment. Corrosion protection is not required for the submersible turbine pump riser.

L =

(1) Category-A USTs and their integral piping systems that contain vehicular fuel, and that are not protected from corrosion, shall have secondary containment, or be upgraded with secondary containment in accordance with Rule 62-761.500, F.A.C.

(2) Dispenser liners and overfill protection equipment shall be installed at UST Category-A systems containing vehicular fuel.

O = UST Category-A vehicular fuel storage tank systems subject to Chapter 17-61, F.A.C.,(1984), shall be retrofitted for corrosion protection.

S = Secondary containment for storage tanks and integral piping not protected from corrosion.

(3) Aboveground storage tank systems.

(a) All storage tank systems with tanks having capacities greater than 550 gallons that contain vehicular fuel and that were subject to Chapter 17-61, F.A.C., shall have met the requirements of such chapter by January 1, 1990.

(b) AST Category-B tanks, with the exception of tanks exempt under Rule 62-761.500(3)(c)1., F.A.C., installed or constructed at a facility after March 12, 1991, shall have secondary containment for the tank.

(c) Integral piping that is in contact with the soil and that is connected to AST systems shall have secondary containment if installed after March 12, 1991. For integral piping that is exempt under Rule 62-761.500(4)(e)4., F.A.C., it is not required to install secondary containment.

(d) By January 1 of the appropriate year shown in Table AST below, unless specified otherwise, all AST Category-A and Category-B storage tank systems shall meet the following requirements or be permanently closed in accordance with Rule 62-761.800(3), F.A.C.

TABLE AST

Year Tank or Integral Piping Installed	1993	2000	2005	2010
+Before July 13, 1998	P	TVX	W	U

Key to Table AST

P = With the exception of high viscosity bulk product piping, bulk product piping in contact with soil and not in secondary containment shall be tested in accordance with API RP 1110, ASME B31.4, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C. Such testing shall be performed annually thereafter.

T =

(1) With the exception of siting and material construction standards, Category-A and Category-B systems shall meet the performance standards of Rule 62-761.500, F.A.C. In addition:

(a) Storage tank system construction standards that include cathodic protection remain applicable; and

(b) Storage tanks where the entire bottom of the tank is in contact with concrete do not have to seal the concrete beneath the tank until such time that the tank bottom is

replaced. However, concrete secondary containment systems designed in accordance with Rule 62-761.500(1)(e)3., F.A.C., do not have to be sealed.

(2) Category-A bulk product piping in contact with the soil shall be upgraded with secondary containment, unless:

(a) A structural evaluation is performed in accordance with API 570, as specified in "U" (2)(b), of Table AST, and results of the structural evaluation indicate that the bulk product piping has remaining useful life; or

(b) The integral piping conveys high viscosity regulated substances, that are exempt from secondary containment in accordance with Rule 62-761.500(4)(e) 4., F.A.C.; or

(c) The integral piping is protected from corrosion and is tested annually in accordance with ASME B31.4, API 1110, or an equivalent method approved by the Department in accordance with Rule 62-761.850, F.A.C. This piping shall have secondary containment by January 1, 2010, in accordance with "U" of Table AST.

(3) Initial internal and external inspections, examinations, and tests for each tank shall be performed in accordance with API Standard 653, and an appropriate reinspection interval for each tank shall be established in accordance with API Standard 653. If any deficiency is discovered during the inspections, the person performing the evaluation of the tank in accordance with API 653 must verify that the tank is ready for service before the storage tank is put back into service. This verification must be documented in the internal inspection records. Future tests for each tank shall be performed in accordance with the inspection interval established in accordance with API 653 (1996). Baseline inspections already conducted according to the API Standard 653 (1991) will be accepted.

(4) As an alternative to installing secondary containment underneath an AST Category-A or Category-B storage tank, the interior bottom of the tank and at least 18 inches up the sides may be internally lined in accordance with API RP 652. Secondary containment must nonetheless be installed in the dike field area and be continuously bonded to the perimeter of the tank foundation.

U =

(1) All internally lined single bottom storage tanks, with the exception of tanks exempt under Rule 62-761.500(3)(c)1., F.A.C., shall be upgraded with secondary containment.

(2) All AST Category-A bulk product piping in contact with the soil , except for piping exempt from secondary containment requirements under Rule 62-761.500(4)(e)4. F.A.C., shall be:

(a) Upgraded with secondary containment in accordance with Rule 62-761.500(1)(e), F.A.C.; or

(b) Instead of being upgraded with secondary containment, be evaluated for structural integrity by:

1. Establishing and maintaining the piping inspection intervals in accordance with API 570, Section 4-2, by January 1, 2000;

2. Determining the remaining life of the system in accordance with API 570, Section 5.0, by January 1, 2000. If the determination indicates that the piping:

a. Must be repaired, then the piping shall be repaired within three months of the determination in accordance with API 570 and Rule 62-761.700, F.A.C.;

b. Is leaking, then the piping must be immediately taken out of operation. If the piping cannot be repaired, it must be closed or upgraded with secondary containment within one year of the determination;

c. Is not leaking, but has corroded to a point where it no longer has structural integrity, then the piping shall be closed, or upgraded with secondary containment by January 1, 2000; or

d. Has remaining useful life, then the piping shall be closed or upgraded with secondary containment when the API 570 inspection and remaining life determination data indicates that closure or replacement is necessary.

3. Providing a certification by a professional engineer registered in the State of Florida that the evaluation meets the above criteria.

V =

(1) Secondary containment for cut and cover or concrete storage tanks.

(2) Spill containment in accordance with Rule 62-761.500(1)(c), F.A.C.

(3) Dispenser liners for shop-fabricated tanks in accordance with Rule 62-761.500(3)(e), F.A.C.

(4) Secondary containment in accordance with Rule 62-761.500(1)(e) and (3)(c), F.A.C., for dike field areas of facilities with shop-fabricated tanks having dike field area secondary containment that is constructed of concrete or installed with synthetic liners not meeting these requirements.

W =

(1) Secondary containment in accordance with Rule 62-761.500(1)(e) and (3)(c), F.A.C., for dike field areas of facilities with field-erected tanks having dike field area secondary containment that is constructed of concrete or installed with synthetic liners not meeting these requirements.

(2) Secondary containment for small diameter piping extending over surface waters.

(3) Secondary containment for small diameter petroleum contact water piping in contact with the soil.

X = Deadline to determine integrity of single wall bulk product piping with an API 570 structural integrity evaluation in accordance with the option for Category-A systems in "U" of Table AST.

Specific Authority 376.303 FS. Law Implemented 376.303-376.3072 FS. History--New 12-10-90, Amended 5-4-92, Formerly 17-761.510, Amended 9-30-96, 07-13-98.