

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**ENVIRONMENTAL COST RECOVERY
CLAUSE**

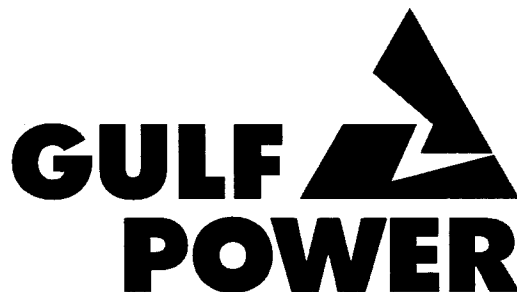
DOCKET NO. 070007-EI

PREPARED DIRECT TESTIMONY
OF
JAMES O. VICK

PROJECTION FILING
FOR THE PERIOD

JANUARY 2008 – DECEMBER 2008

AUGUST 31, 2007



A SOUTHERN COMPANY

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1 GULF POWER COMPANY

2 Before the Florida Public Service Commission

3 Prepared Direct Testimony of

4 James O. Vick

5 Docket No. 070007-EI

6 August 31, 2007

7

8 Q. Please state your name and business address.

9 A. My name is James O. Vick and my business address is One Energy
10 Place, Pensacola, Florida, 32520.

11

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

13 A. I am employed by Gulf Power Company as the Director of Environmental
14 Affairs.

15

16 Q. Mr. Vick, will you please describe your education and experience?

17 A. I graduated from Florida State University, Tallahassee, Florida, in 1975
18 with a Bachelor of Science Degree in Marine Biology. I also hold a
19 Bachelor's Degree in Civil Engineering from the University of South
20 Florida in Tampa, Florida. In addition, I have a Masters of Science
21 Degree in Management from Troy State University, Pensacola, Florida. I
22 joined Gulf Power Company in August 1978 as an Associate Engineer. I
23 have since held various engineering positions with increasing
24 responsibilities such as Air Quality Engineer, Senior Environmental
25 Licensing Engineer, and Manager of Environmental Affairs. In 2003,

1 I assumed my present position as Director of Environmental Affairs.

2

3 Q. What are your responsibilities with Gulf Power Company?

4 A. As Director of Environmental Affairs, my primary responsibility is
5 overseeing the activities of the Environmental Affairs section to ensure the
6 Company is, and remains, in compliance with environmental laws and
7 regulations, i.e., both existing laws and such laws and regulations that
8 may be enacted or amended in the future. In performing this function, I
9 have the responsibility for numerous environmental activities.

10

11 Q. Are you the same James O. Vick who has previously testified before this
12 Commission on various environmental matters?

13 A. Yes.

14

15 Q. Mr. Vick, what is the purpose of your testimony?

16 A. The purpose of my testimony is to support Gulf Power Company's
17 projection of environmental compliance costs recoverable through the
18 Environmental Cost Recovery Clause (ECRC) for the period from January
19 2008 through December 2008.

20

21 Q. Mr. Vick, please identify the capital projects included in Gulf's ECRC
22 projection filing.

23 A. The environmental capital projects for which Gulf seeks recovery through
24 the ECRC are described in Schedules 3P, 4P, and 5P attached to the
25 Company's petition in this docket. The exhibits attached to the petition

1 have been incorporated into hearing exhibits that are being sponsored in
2 this proceeding by Ms. Martin. I am supporting the expenditures,
3 clearings, retirements, salvage and cost of removal currently projected for
4 each of these projects and the monthly costs for emission allowances.
5 Ms. Martin compiled these schedules and has calculated the associated
6 revenue requirements for Gulf's requested recovery.

7
8 Q. Have all of the capital projects shown on Ms. Martin's schedules been
9 approved by the Commission?

10 A. No. Gulf's 2008 ECRC capital projection includes (1) projects that have
11 been previously approved by the Commission, (2) additional expenditures
12 associated with projects previously approved by the Commission and (3)
13 new projects.

14
15 Q. Mr. Vick, please describe the capital projects included in Gulf's
16 CAIR/CAMR/CAVR Compliance Program that will impact the 2008
17 projected ECRC revenue requirements.

18 A. For the purpose of the 2008 projection of ECRC revenue requirements,
19 expenditures totaling \$23.5 million are projected to be incurred for capital
20 projects included in the CAIR/CAMR/CAVR Compliance Program. These
21 capital projects include installing Activated Carbon Injection (ACI) at Plant
22 Daniel on Unit 2, Low NO_x burners at Plant Daniel on Units 1 and 2,
23 Selective Non-Catalytic Reduction (SNCR) technologies at Plant Smith on
24 Units 1 and 2, and mercury monitoring equipment. As I will discuss later
25 in my testimony, ACI has been added to Gulf's Compliance Program for

1 mercury control at Plant Daniel beginning in 2010.

2 The Daniel Low NO_x burners and Smith SNCRs are needed for
3 Phase I Clean Air Interstate Rule (CAIR) annual and seasonal NO_x cap
4 and trade allowance programs. In addition, NO_x reductions from these
5 projects will help in maintaining local compliance with the 8-hour ozone
6 standard.

7 As I previously discussed in my 2007 estimated/actual true-up
8 testimony, portions of the Plant Smith SNCR projects have been delayed
9 from 2007 to 2008. Engineering and design for the SNCRs will occur
10 during 2007 as previously projected. Gulf will not begin receiving
11 materials during 2007 as originally planned. The receipt of materials is
12 not expected until 2008. The Daniel Unit 2 Low NO_x burners are expected
13 to be placed in service during December of 2008.

14 The Clean Air Mercury Rule (CAMR) will require continuous
15 emission monitoring of mercury emissions at all of Gulf's coal-fired units
16 and the Plant Crist scrubber. Mercury monitors will be installed during
17 2008 on all of Gulf's coal-fired units excluding Plant Crist. Mercury
18 monitors will be installed on the Plant Crist scrubber during 2009.

19 The Plant Crist Units 4 through 7 mercury monitors that were
20 previously scheduled to be placed in service during 2008 have been
21 removed from the current projection. These monitors are no longer
22 required because EPA approved Gulf's petition for an extension of the
23 deadline for installation of mercury monitors on the existing stacks until
24 after the scrubber is completed. The granting of this petition eliminated
25 the need for the plant to install four mercury monitors that would only be

1 needed from January 1, 2009 until the completion of the scrubber later in
2 2009.

3 In 2008, installation of mercury monitoring equipment is also
4 planned for Gulf's relative accuracy testing audit (RATA) trailer. This
5 system will be used to subject the mercury monitors to rigorous quality
6 assurance measures in order to ensure accurate accounting of mercury
7 emissions.

8
9 Q. Mr. Vick, are there additional capital expenditures projected in 2008 for
10 ECRC projects/programs that have been previously approved by the
11 Commission?

12 A. Yes. There are six additional projects that have projected capital
13 expenditures during 2008. Four of the projects are related to Gulf's
14 existing Air Quality programs: Crist 5, 6, & 7 Precipitator Upgrades,
15 Continuous Emission Monitoring (CEMs) replacements, Plant Crist FDEP
16 Agreement for Ozone Attainment, and Precipitator Upgrades for
17 Compliance Assurance Monitoring (CAM) Compliance. The Daniel Ash
18 Management project and the Plant NPDES Compliance Projects also
19 have projected expenditures in 2008.

20
21 Q. Mr. Vick, please describe the expenditures included in the 2008 projection
22 for the Crist 5, 6, & 7 Precipitator Upgrades (Line 1.2).

23 A. The Plant Crist Unit 6 and Unit 7 precipitator upgrades were originally
24 undertaken in the early 1990's and approved for environmental cost
25 recovery in Docket No. 930613-EI. These upgrades were required and

1 continue to be needed to comply with the Clean Air Act Amendments
2 (CAAA) of 1990. During the 2008 recovery period, Plant Crist plans to
3 install a new purge air system on the Unit 6 precipitator to ensure that the
4 insulators continue functioning properly in order to maintain compliance
5 with the CAAA. The 2008 projected expenditures for the purge air system
6 are \$500,000.

7
8 Q. Mr. Vick, please describe the projects included in the 2008 projection for
9 Continuous Emission Monitoring (Line 1.5).

10 A. During the 2008 recovery period, the CEMs project includes the
11 replacement of opacity, flow, and gas monitors at Plant Smith and opacity
12 and gas monitors at Plant Scholz. Opacity monitors are needed to
13 maintain compliance with the CAAA requirements. Flow and gas monitors
14 are necessary in order to provide the accuracy and reliability needed to
15 measure SO₂ and NO_x for compliance with Chapter 40 CFR Part 75 under
16 the Acid Rain Program. The Plant Smith CEMs replacements were
17 originally projected to be placed in-service during December of 2007;
18 however, this project has been delayed while Gulf evaluates the feasibility
19 of moving the monitoring location from the air ducts to the stack. The
20 existing monitors at Plants Smith and Scholz are approaching the end of
21 their useful lives and will be retired upon replacement. The 2008
22 expenditures are expected to be approximately \$1.0 million.

1 Q. Please describe the expenditures included in the 2008 projection for the
2 Crist FDEP Agreement for Ozone Attainment (Line 1.19).

3 A. For the 2008 projection, Gulf has included additional capital costs to meet
4 the terms of the August 28, 2002, agreement with FDEP. Gulf will be
5 installing a new layer of the Crist Unit 7 SCR catalyst and an additional
6 ash vibrator system to manage waste products associated with the
7 operation of the SCR system. The addition of this layer of catalyst will
8 allow for the maintenance of the catalyst system over time. The Crist
9 SCR ash vibrator system is needed to ensure that the SCR hoppers can
10 be completely emptied to prevent operational problems. The projected
11 2008 expenditures for the Crist FDEP Agreement project are \$2.15
12 million.

13
14 Q. Mr. Vick, please describe the expenditures included in the 2008 projection
15 for the Precipitator Upgrades for CAM Compliance (Line Item 1.22).

16 A. CAM requirements are regulated under Chapter 40 CFR Part 64 which
17 requires a method of continuously monitoring pollution control equipment.
18 Opacity can be used as a surrogate parameter if the precipitator
19 demonstrates a correlation between opacity and particulate matter. Gulf
20 demonstrated this correlation by stack testing in 2003 and 2004, and
21 submitted the results to the FDEP as part of a CAM plan in Gulf's Title V
22 Air Permit renewals in 2004. The Crist Units 4 and 5 precipitator
23 upgrades that are included under this line item on Ms. Martin's schedules
24 are necessary to meet the more stringent surrogate opacity standards
25 under CAM. These projects were approved for environmental cost

1 recovery in the Commission Order resulting from the November 2006
2 ECRC hearing. At the time of the 2007 ECRC estimated/actual true-up
3 filing, Gulf expected the Unit 5 precipitator upgrade to be completed
4 during December of 2007; however, the project will not be placed in
5 service until March of 2008 due to changes in the unit outage schedule.
6 The Crist Unit 4 precipitator upgrade is also expected to be placed in
7 service in March of 2008 in conjunction with the spring outage. Gulf's
8 projected 2008 expenditures for the Plant Crist CAM precipitator upgrades
9 are \$9.6 million.

10
11 Q. Please describe the 2008 projected expenditures for the Daniel Ash
12 Management Project (Line 1.16).

13 A. The FPSC granted approval for recovery of the Daniel Ash Management
14 Project through the ECRC in Order No. PSC-94-0044-FOF-EI. During the
15 2005 ECRC projection filing, the project was expanded to include a new
16 on-site ash storage facility in preparation for the completion and closure of
17 the existing storage area. The new ash storage facility was placed in
18 service during December of 2006. Gulf expects to incur approximately
19 \$34,000 of additional capital expenditures during 2008 to complete
20 construction of the stormwater management system.

21
22 Q. Mr. Vick, please describe the 2008 projected expenditures for the Plant
23 NPDES Compliance Program (Line 1.25).

24 A. The Plant NPDES compliance program encompasses projects necessary
25 to meet more stringent water quality standards required by Gulf's NPDES

1 industrial wastewater permits. The first project related to this compliance
2 activity was the Crist condenser tube project implemented in 2006. As
3 shown in Ms. Martin's schedules, the line item previously titled "Crist
4 Condenser Tubes" has been renamed "Plant NPDES Compliance
5 Projects" to better reflect the full scope of this activity. This line item will
6 include both the original Crist Unit 6 condenser tube project and any
7 additional copper water treatment projects at Plant Crist related to
8 compliance with the water quality requirements of the Plant Crist NPDES
9 industrial wastewater permit.

10 For 2008, we are anticipating the need for an additional copper
11 water treatment project as part of the Plant NPDES Compliance program
12 that was initiated when the Crist condenser tubes project was
13 implemented in 2006 to meet more stringent water quality standards. As
14 has been discussed in previous testimony, the water quality-based copper
15 effluent limitations included in Chapter 62 Part 302, Florida Administrative
16 Code, were amended in April 2002 with an effective date of May 2002.
17 The more stringent hardness-based standard is included by reference in
18 the Plant Crist NPDES industrial wastewater permit. The copper limit is
19 calculated from an equation that is dependent upon the river water
20 hardness concentration.

21 Surface water studies were conducted from 2003 through 2005 to
22 determine the source of aqueous copper in the effluent. The results of
23 the study concluded that the Crist Unit 6 condenser was the main source
24 of the incremental copper in the Plant Crist discharge. The condenser
25 tubes were replaced with stainless steel condenser tubes during 2006 in

1 an effort to meet the revised water quality standards. Although we have
2 eliminated the Plant Crist Unit 6 condenser tubes as the main source of
3 aqueous copper in the discharge, Plant Crist has continued to encounter
4 problems meeting the copper water quality standard.

5 Gulf is currently conducting a study to identify solutions necessary
6 to further reduce the copper concentration. Gulf expects to incur
7 approximately \$150,000 of expenditures during 2008 to help ensure
8 compliance with the NPDES permit water quality standards. Solutions
9 currently being considered include chemical treatment and/or aeration of
10 either the oil skimmer pond or ash pond.

11
12 Q. Have there been any developments regarding Gulf's CAIR/CAMR/CAVR
13 Compliance Program that have an impact on capital projects projected for
14 recovery during 2008?

15 A. Yes. Testing of ACI at Plant Daniel has demonstrated that 60-70% of the
16 mercury emissions may be controlled through the use of ACI which is
17 higher than typically expected when ACI is added ahead of an
18 electrostatic precipitator as will be the case at Plant Daniel. As a result,
19 we are now proposing to add ACI at Plant Daniel as an element of Gulf's
20 CAIR/CAMR/CAVR Compliance Program for mercury control at Plant
21 Daniel as part of the obligation to meet CAMR requirements beginning in
22 2010. Addition of ACI will serve to reduce Gulf's need to rely on an
23 undeveloped mercury allowance market. In order to meet this time frame
24 and take advantage of the outage schedule for Daniel Units 1 and 2, an
25 ACI system will be installed on Daniel Unit 2 during 2008 and on Daniel

1 Unit 1 during 2009.

2 ACI involves the addition of powdered activated carbon to the flue
3 gas stream that absorbs vapor phase mercury. The activated carbon (and
4 absorbed mercury) is then collected in a particulate collection device. In
5 addition to reducing Gulf's (and Mississippi's) reliance on an as yet
6 undeveloped allowance market, the installation of ACI at Plant Daniel and
7 the purchase of additional SO₂ allowances allow Gulf and Mississippi
8 Power the opportunity to adjust the timing for the installation of flue gas
9 desulfurization and selective catalytic reduction (SCR) technology at Plant
10 Daniel in order to optimize the co-benefits of these two components with
11 regard to mercury control. The impact of this project on the projected cost
12 savings to the customer from retrofitting the units compared to retirement
13 and replacement is less than five percent of the initial savings shown for
14 Plant Daniel in Gulf's March 29, 2007 CAIR/CAMR/CAVR Compliance
15 Plan. In other words, although the NPV savings or benefit to Gulf's
16 customers from retrofitting Plant Daniel and continuing to operate these
17 units as compared to the retirement replacement alternative for this
18 capacity is reduced slightly due to the addition of ACI, this slight reduction
19 reduces the reliance on an as yet undeveloped market for allowances and
20 the associated risk.

21

22 Q. Mr. Vick, are you including the purchase of allowances in your 2008
23 projection filing?

24 A. No, we currently do not have plans to purchase allowances during 2008.
25 However, Gulf's compliance strategy continues to include possible forward

1 contracts, swaps, and spot market purchases of allowances depending on
2 market prices. The reasoning behind this strategy is Gulf's concern over
3 the availability and the price of allowances as the compliance deadlines
4 for CAIR and CAMR approach. Many utilities are no longer selling any
5 allowances in anticipation of their own shortfalls in the coming years.
6 Although we are not projecting any purchases during 2008 at this time, if
7 favorable market conditions develop, we will do so.

8
9 Q. Please compare the environmental Operation and Maintenance (O&M)
10 activities listed on Schedule 2P of Ms. Martin's exhibit to the O&M
11 activities approved for cost recovery in past ECRC proceedings.

12 A. All of the O&M activities listed on Schedule 2P have been approved for
13 recovery through the ECRC in past proceedings, including O&M expenses
14 associated with the approved stipulation regarding portions of Gulf's
15 CAIR/CAMR/CAVR Compliance Program.

16
17 Q. Please describe the O&M activities included in the air quality category that
18 have projected expenses in 2008.

19 A. There are five O&M activities included in the air quality category that have
20 projected expenses in 2008. On Schedule 2P, Air Emission Fees (Line
21 Item 1.2), represents the expenses projected for the annual fees required
22 by the CAAA that are payable to the FDEP. The expenses projected for
23 the recovery period total \$779,874.

24 Included in the air quality category, Title V (Line Item 1.3)
25 represents projected expenses associated with the implementation of the

1 Title V permits. The total estimated expenses for the Title V Program
2 during 2008 are \$91,571.

3 On Schedule 2P, Asbestos Fees (Line Item 1.4) consists of the
4 fees required to be paid to the FDEP for the purpose of funding the
5 State's asbestos abatement program. The expenses projected for the
6 recovery period total \$2,250.

7 Emission Monitoring (Line Item 1.5) on Schedule 2P reflects an
8 ongoing O&M expense associated with the Continuous Emission
9 Monitoring equipment as required by the CAAA. These expenses are
10 incurred in response to EPA's requirements that the Company perform
11 Quality Assurance/Quality Control (QA/QC) testing for the CEMs,
12 including Relative Accuracy Test Audits (RATAs) and Linearity Tests.
13 Other activities within this category include the testing, development, and
14 implementation of new compliance assurance monitoring requirements
15 associated with the CAAA. The expenses expected to be
16 incurred during the 2008 recovery period for these activities total
17 \$663,054.

18 The FDEP NO_x Reduction Agreement (Line Item 1.19) includes the
19 O&M costs associated with the Plant Crist Unit 7 SCR and Crist Units 4
20 through 6 SNCR projects that were included as part of the 2002
21 agreement with FDEP. This O&M line item includes the cost of anhydrous
22 ammonia, urea, air monitoring, and general operation and maintenance
23 expenses related to the activities undertaken in connection with the
24 agreement. Gulf was granted approval for recovery of the costs incurred
25 to complete these activities in FPSC Order No. PSC-02-1396-PAA-EI in

1 Docket No. 020943-EI . The projected expenses for the 2008 recovery
2 period total \$3,061,705.

3
4 Q. What O&M activities are included in water quality category?

5 A. The first activity, General Water Quality (Line Item 1.6), identified in
6 Schedule 2P, includes Soil Contamination Studies, Dechlorination,
7 Groundwater Monitoring Plan Revisions, Surface Water Studies, and the
8 Cooling Water Intake Program. This activity was previously approved for
9 ECRC recovery and is projected to incur incremental expenses totaling
10 \$338,913 during 2008.

11 The second activity listed in the water quality category,
12 Groundwater Contamination Investigation (Line Item 1.7), was previously
13 approved for environmental cost recovery in Docket No. 930613-EI. This
14 line item includes expenses related to substation investigation and
15 remediation activities. Expenses expected to be incurred during the
16 projection period for this line item total \$1,396,476.

17 Line Item 1.8, State NPDES Administration, was previously
18 approved for recovery in the ECRC and reflects expenses associated with
19 annual fees for Gulf's three generating facilities in Florida. These
20 expenses are expected to be \$42,000 during the projected recovery
21 period.

22 Finally, Line Item 1.9, Lead and Copper Rule, was also previously
23 approved for ECRC recovery and reflects sampling, analytical and
24 chemical costs related to the lead and copper drinking water quality
25 standards. These expenses are expected to total \$21,500 during the

1 2008 projection period.

2

3 Q. What activities are included in the environmental affairs administration
4 Category?

5 A. Only one O&M activity is included in this category on Schedule 2P (Line
6 Item 1.10) of Ms. Martin's exhibit. This line item refers to the Company's
7 Environmental Audit/Assessment function. This program is an on-going
8 compliance activity previously approved for ECRC recovery. Expenses
9 totaling \$1,300 are expected during the 2008 recovery period.

10

11 Q. What O&M activities are included in the general solid and hazardous
12 waste category?

13 A. Only one program, General Solid and Hazardous Waste (Line Item 1.11)
14 is included in the solid and hazardous waste category on Schedule 2P.
15 This activity involves the proper identification, handling, storage,
16 transportation and disposal of solid and hazardous wastes as required by
17 federal and state regulations. The program includes expenses for Gulf's
18 generating and power delivery facilities. This program is a previously
19 approved program that is projected to incur incremental expenses totaling
20 \$331,185 in 2008.

21

22 Q. In addition to the four major O&M categories listed above, are there any
23 other O&M activities which have been approved for recovery that have
24 projected expenses?

25 A. Yes. There are four other O&M activities that have been approved in past

1 proceedings which have projected expenses. They are the Above Ground
2 Storage Tanks program, the Sodium Injection System, the
3 CAIR/CAMR/CAVR Compliance Program, and SO₂ Allowances.
4

5 Q. What O&M activities are included in the Above Ground Storage Tanks line
6 item?

7 A. Above Ground Storage Tanks (Line Item 1.12) includes integrity testing
8 and maintenance activities required by Florida's above ground storage
9 tank regulation, Chapter 62 Part 762, F.A.C. Expenses totaling \$180,500
10 are projected to be incurred during 2008.
11

12 Q. What activity is included in the Sodium Injection line item?

13 A. The Sodium Injection System (Line Item 1.16) was originally approved for
14 inclusion in the ECRC in Order No. PSC-99-1954-PAA-EI. The activities
15 in this line item involve sodium injection to the coal supply that enhances
16 precipitator efficiencies when burning certain low sulfur coals at the plants.
17 The expenses projected for the 2008 recovery period total \$238,000.
18

19 Q. What activities are included in the CAIR/CAMR/CAVR Compliance
20 Program (Line Item 1.20) activity?

21 A. The CAIR/CAMR/CAVR Compliance Program (Line Item 1.20) is being
22 included in the ECRC projection for the first time. This line item currently
23 includes O&M expenses associated with the mercury monitoring projects
24 that were included as part of the CAIR/CAMR/CAVR Compliance Program
25 stipulation approved by the Commission on August 14, 2007. The

1 projected expenses for the 2008 recovery period total \$275,401.

2

3 Q. Please describe the emission allowances line items 1.21 through 1.24.

4 A. These line items include projected allowance expenses for Gulf's
5 generating plants. There are currently no projected allowance expenses
6 for line items 1.21 through 1.23 during 2008. Line Item 1.24 represents
7 projected expenses for SO₂ allowances expected to be utilized during
8 2008. The SO₂ expenses are offset by the amortization of gains from the
9 sale of SO₂ allowances.

10

11 Q. Do each of the capital projects and O&M activities that have
12 projected costs in 2008 meet the ECRC statutory guidelines?

13 A. Yes, the projects included in Gulf's 2008 ECRC projection filing meet the
14 requirements of the ECRC statute and are consistent with the
15 Commission's precedent regarding environmental cost recovery. Each of
16 the capital projects and O&M activities set forth on Ms. Martin's schedules
17 include only prudent costs incurred after April 13, 1993 that are not
18 recovered through some other cost recovery mechanism or base rates.
19 The projected environmental costs are necessary to achieve and/or
20 maintain compliance with environmental laws, rules, and regulations.

21

22 Q. Mr. Vick, does this conclude your testimony?

23 A. Yes.

24

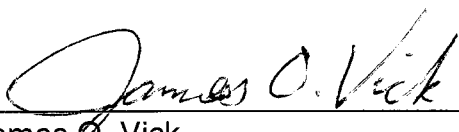
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AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 070007-EI

Before me the undersigned authority, personally appeared James O. Vick, who being first duly sworn, deposes, and says that he is the Director of Environmental Affairs of Gulf Power Company, a Florida corporation, and that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.



James O. Vick
Director of Environmental Affairs

Sworn to and subscribed before me this 30th day of August, 2007.



Notary Public, State of Florida at Large

Commission Number: DD 541216

Commission Expires: May 31, 2010

