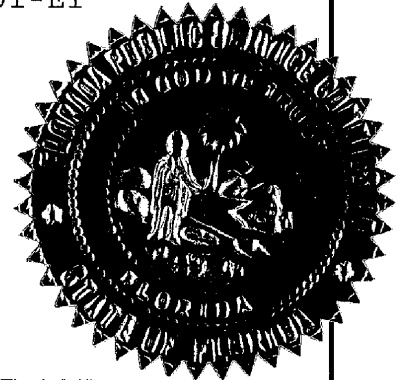


BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 050001-EI

In the Matter of

FUEL AND PURCHASED POWER  
COST RECOVERY CLAUSE WITH  
GENERATING PERFORMANCE INCENTIVE  
FACTOR.



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VOLUME 3

Pages 353 through 432

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN BRAULIO L. BAEZ  
COMMISSIONER J. TERRY DEASON  
COMMISSIONER RUDOLPH "RUDY" BRADLEY  
COMMISSIONER LISA POLAK EDGAR  
COMMISSIONER ISILIO ARRIAGA

DATE: Monday, November 7, 2005

TIME: Commenced at 1:00 p.m.  
Concluded at 5:45 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: (As heretofore noted.)

## 1 I N D E X

## 2 WITNESSES

3 NAME: PAGE NO.

4 WALTER E. GWINN

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EXHIBITS

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| NUMBER: |                                  | ID. | ADMTD. |
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## P R O C E E D I N G S

(Transcript follows in sequence from Volume 2.)

MR. BUTLER: Call, I believe it's Ms. Dubin, although I'm not sure. Is Ms. Dubin next or is it Mr. -- Mr. Gwinn? Okay.

CHAIRMAN BAEZ: Mr. Gwinn I have. I'm sorry.

MR. LITCHFIELD: Mr. Chairman, may I proceed?

CHAIRMAN BAEZ: Please.

WALTER E. GWINN

was called as a witness on behalf of Florida Power & Light Company and, having been duly sworn, testified as follows:

## D I R E C T E X A M I N A T I O N

BY MR. LITCHFIELD:

Q Mr. Gwinn, have you been sworn?

A Yes, I have.

Q Would you please state your name and business address for the record.

A My name is Walter Gwinn. My business address is 700 Universe Boulevard, Juno Beach, Florida.

Q And by whom are you employed and what is your position?

A I'm employed by Florida Power & Light as the Manager of Nuclear Financial Performance.

Q Am I correct that you have adopted the testimony of John Hartzog filed in this proceeding dated September 9th,

1 2005?

2 A That is correct.

3 Q And did you also cause to be filed two pages of  
4 additional direct testimony detailing your educational and  
5 professional background on October 4th, 2005?

6 A That is correct.

7 Q Do you have any changes to, to your direct testimony?

8 A No, I do not.

9 Q If I asked you the same questions reflected in that  
10 testimony today, would your answers be the same?

11 A Yes, they would.

12 MR. LITCHFIELD: Mr. Chairman, I would ask that  
13 Mr. Gwinn's direct testimony be inserted into the record as  
14 though read.

15 CHAIRMAN BAEZ: Without objection, show the direct  
16 testimony of J. R. Hartzog as adopted by Witness Gwinn entered  
17 into the record as though read.

18 BY MR. LITCHFIELD:

19 Q Now, Mr. Gwinn, in connection with submitting the two  
20 pages of additional direct detailing your professional and  
21 educational background you submitted an exhibit as well;  
22 correct?

23 A That's correct.

24 Q And that exhibit is, consists of one page and it's  
25 labeled as WEG-1?

1           A     Yes.

2                   MR. LITCHFIELD:  Mr. Chairman, that exhibit has been  
3 premarked in the prehearing order as hearing Exhibit Number 18.

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION****FLORIDA POWER & LIGHT COMPANY****TESTIMONY OF J.R. HARTZOG****DOCKET NO. 050001-EI****September 9, 2005**

1 **Q. Please state your name and address.**

2 **A. My name is John R. Hartzog. My business address is 700 Universe**  
3 **Boulevard, Juno Beach, Florida 33408.**

4

5 **Q. By whom are you employed and what is your position?**

6 **A. I am employed by Florida Power & Light Company (FPL) as a**  
7 **Manager of Nuclear Finance in the Nuclear Business Unit.**

8

9 **Q. Have you testified in predecessors to this docket?**

10 **A. Yes.**

11

12 **Q. Are you sponsoring an exhibit?**

13 **A. Yes. It consists of Document JRH-1, which is attached to my**  
14 **testimony.**

15

16 **Q. What is the purpose of your testimony?**

1 A. My testimony presents and explains FPL's projections of nuclear fuel  
2 costs for the thermal energy (MMBTU) to be produced by our  
3 nuclear units, the costs of disposal of spent nuclear fuel, the costs of  
4 decontamination and decommissioning (D&D), and the processes  
5 associated with FPL's planned and unplanned outages. I am also  
6 updating the status of certain litigation that affects FPL's nuclear fuel  
7 costs; plant security costs and new NRC security initiatives; the  
8 inspections and repairs to the reactor pressure vessel heads since  
9 the issuance of NRC Bulletin (IEB) 2002-02; and the status of the St  
10 Lucie Unit 2 Steam Generators. Both nuclear fuel and disposal of  
11 spent nuclear fuel costs were input values to POWERSYM used to  
12 calculate the costs to be included in the proposed fuel cost recovery  
13 factors for the period January 2006 through December 2006.

14

15 **Nuclear Fuel Costs**

16

17 **Q. What is the basis for FPL's projections of nuclear fuel costs?**

18 A. FPL's nuclear fuel cost projections are developed using projected  
19 energy production at our nuclear units and their operating schedules,  
20 for the period January 2006 through December 2006.

21

22 **Spent Nuclear Fuel Disposal Costs**



1

2 **Q. Please provide FPL's projection for nuclear fuel unit costs and**  
3 **energy for the period January 2006 through December 2006.**

4 A. FPL projects the nuclear units will produce 262,306,750 MMBTU of  
5 energy at a cost of \$0.3305 per MMBTU, excluding spent fuel  
6 disposal costs, for the period January 2006 through December 2006.  
7 Projections by nuclear unit and by month are in Appendix II, on  
8 Schedule E-4, starting on page 16 of the Appendix.

9

10 **Q. Please provide FPL's projections for spent nuclear fuel disposal**  
11 **costs for the period January 2006 through December 2006 and**  
12 **explain the basis for FPL's projections.**

13 A. FPL's projections for spent nuclear fuel disposal costs of  
14 approximately \$21.9 million are provided in Appendix II, on Schedule  
15 E-2, starting on page 10 of the Appendix. These projections are  
16 based on FPL's contract with the U.S. Department of Energy (DOE),  
17 which sets the spent fuel disposal fee at 0.9294 mills per net kWh  
18 generated, including transmission and distribution line losses.

19

20 **Decontamination and Decommissioning Costs**

21

1 **Q. Please provide FPL's projection for DOE Decontamination and**  
2 **Decommissioning (D&D) costs to be paid in the period January**  
3 **2006 through December 2006 and explain the basis for FPL's**  
4 **projection.**

5 **A. FPL's projection of \$7.08 million for D&D costs is based on the**  
6 **amount of Separative Work Units (SWU) purchased per the**  
7 **contractual agreement with the DOE, to be paid during the period**  
8 **January 2006 through December 2006 and is included in Appendix**  
9 **II, on Schedule E-2 starting on page 10 of the Appendix.**

10

11 **Litigation Status Update**

12

13 **Q. Are there currently any unresolved disputes under FPL's**  
14 **nuclear fuel contracts?**

15 **A. Yes.**

16

17 **Spent Fuel Disposal Dispute. This dispute arose under FPL's**  
18 **contract with the Department of Energy (DOE) for final disposal of**  
19 **spent nuclear fuel. In 1995 FPL, along with a number of electric**  
20 **utilities, states, and state regulatory agencies, filed suit against DOE**  
21 **over its obligation to accept spent nuclear fuel beginning in 1998.**  
22 **On July 23, 1996, the U.S. Court of Appeals for the District of**

1 Columbia Circuit (D.C. Circuit) held that DOE is required by the  
2 Nuclear Waste Policy Act (NWPA) to take title and dispose of spent  
3 nuclear fuel from nuclear power plants beginning on January 31,  
4 1998.

5  
6 On January 11, 2002, based on the D.C. Circuit's ruling, the Court of  
7 Federal Claims granted FPL's motion for partial summary judgment  
8 in favor of FPL on contract liability. There is no trial date scheduled  
9 at this time for the FPL damages claim.

10

11 Following a trial, the Court of Federal Claims ruled on May 21, 2004  
12 that another nuclear plant owner, Indiana Michigan Power Company,  
13 was not entitled to any damages arising out of the Government's  
14 failure to begin disposal of spent nuclear fuel by January 31, 1998.  
15 Indiana Michigan has appealed the Court's decision to the U.S.  
16 Court of Appeals for the Federal Circuit. This appeal is pending.

17

18 **Q. Has FPL resolved any of the disputes under its nuclear fuel**  
19 **contracts that you have described to the Commission**  
20 **previously?**

21 **A. Yes. FPL has entered into a settlement agreement with the U.S.**  
22 **Government of all of its uranium enrichment claims. The agreement**

1 required the Government to pay FPL a total of \$6,845,200 to resolve  
2 those claims. The resolved claims are listed below:

3

4 1(a). Uranium Enrichment Pricing Disputes – FY 1993  
5 Overcharges. FPL resolved a pricing dispute concerning uranium  
6 enrichment services purchased from the U.S. Government, prior to  
7 July 1, 1993.

8

9 1(b). Uranium Enrichment Services Contract. DOE was required  
10 under FPL's uranium enrichment services contract with DOE to  
11 establish a price for enrichment services pursuant to DOE's  
12 established pricing policy, based on recovery of DOE's appropriate  
13 costs over a reasonable period of time. In the course of discovery in  
14 the FY1993 overcharge case discussed above, FPL and the other  
15 utility plaintiffs uncovered two other cost components that DOE  
16 improperly included in its cost recovery calculation.

17

18 Gaseous Centrifuge Enrichment Project (GCEP) Claim. In 1976,  
19 Congress first authorized the construction of GCEP as additional  
20 Government uranium enrichment capacity to meet the then-  
21 projected future demand. This future demand never materialized  
22 and, by 1985, DOE found itself in a plant over capacity position and

1 the highest cost worldwide producer of enrichment services. In  
2 1985, DOE cancelled the GCEP and wrote-off the entire \$3.6 billion  
3 from the DOE Uranium Enrichment Activity's 1986 financial  
4 statements relating to accumulated costs of plant construction,  
5 termination costs, and imputed interest associated with GCEP.  
6 DOE failed to exclude the entire \$3.6 billion from its calculation in  
7 setting the uranium enrichment services price.

8  
9 High Assay Costs. In 1991, DOE adjusted the financial statements  
10 of the Uranium Enrichment Activity by removing approximately \$1.14  
11 billion in accumulated losses and other costs relating to the  
12 production of High Assay uranium. DOE made this adjustment  
13 based on its conclusion that the Uranium Enrichment Activity no  
14 longer had any responsibility for the High Assay program, which  
15 produced uranium for military purposes. Despite removing such  
16 costs from the financial statements, DOE improperly included  
17 approximately \$394 million of High Assay costs in calculating the  
18 price for uranium enrichment services for FY1992 through FY1993.

19  
20 FPL's settlement of \$6,845,200 will be passed on to customers  
21 through the Fuel Cost Recovery Clause. FPL's litigation expense  
22 regarding this case has been approximately \$400,000. FPL

1           Witness K. M. Dubin will discuss the inclusion of this settlement and  
2           associated litigation expenses in the Fuel Cost Recovery Clause.

3

4    **Planned and Unplanned Outages**

5

6    **Q.    What actions does FPL take to minimize the occurrence,**  
7           **duration, and magnitude of its unplanned outages at its**  
8           **nuclear units?**

9    **A.    One of FPL's nuclear strategic focus areas is Operational**  
10           **Excellence which includes initiatives to maintain high equipment**  
11           **reliability. FPL has implemented a Nuclear Administrative**  
12           **Procedure (NAP) for equipment reliability. This procedure**  
13           **describes the integrated and coordinated process that the Nuclear**  
14           **Division uses to evaluate, monitor and maintain station equipment**  
15           **important to safe and reliable plant operation.**

16

17           **FPL's equipment and systems are continuously monitored to**  
18           **identify issues that may impact safety, challenge reliability and**  
19           **threaten plant operation. Improvement action plans are developed**  
20           **for these conditions and work is prioritized accordingly to ensure**  
21           **these conditions are corrected to minimize the occurrence of**  
22           **unplanned outages.**

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FPL also has a structured human performance program and training programs to ensure that personnel conduct their activities to the highest of standards and error free. These programs minimize the potential for human performance challenges to safe and reliable operations.

**Q. What actions does FPL take to complete its planned maintenance outages at its nuclear units on schedule and on budget?**

**A. Extensive efforts are taken to carefully plan outages to optimize the use of the outage time and to ensure that activities are properly scheduled to avoid conflicts and delays. These schedules are subject to multiple management reviews and challenges to ensure they are reasonable and achievable, and ensure safe plant conditions at all times. Pre-outage milestones are established for preparatory activities, including work-order preparation, pre-outage work scope planning, required resource identification, and outage material delivery. Progress in achieving these milestones is monitored through regular meetings with senior management overview. Extensive training is also conducted prior to the start of planned outages to provide personnel with the skills and**

1 knowledge needed to minimize errors and facilitate outage  
2 execution.

3

4 For each nuclear unit outage, a structured outage organization is  
5 put in place to manage outage execution. An outage control  
6 center is staffed with representatives from all departments to  
7 closely coordinate activities, resolve emergent issues, and monitor  
8 progress. Schedule and activity adjustments are made as  
9 necessary. Meetings among key stakeholders are conducted at  
10 least twice daily to assess progress and establish direction to  
11 assure the outage progresses as expected.

12

13 During our planned refueling outages the budget is reviewed  
14 regularly by the site management team to ensure outage  
15 expenditures are on target with the outage budget. Variances are  
16 identified and appropriate actions are implemented to maintain the  
17 outage budget.

18

19 **Q. What actions has FPL taken to at its nuclear units to minimize**  
20 **incremental fuel and purchased power costs due to the impact**  
21 **of the 2004 hurricane season?**



1 A. The 2004 hurricane season did not affect the operation of FPL's  
2 Turkey Point nuclear units. However, the St. Lucie nuclear units  
3 were shut down during Hurricanes Frances and Jeanne as required  
4 by the site procedures shortly before the site began experiencing  
5 hurricane-force winds. When the storms passed, an on-site  
6 damage assessment commenced. Resources were dedicated  
7 twenty-four hours a day to safely restoring the units to service as  
8 soon as possible.

9  
10 FEMA and NRC approval are required to restart the units following  
11 a natural disaster. Consequently, FPL worked very closely with  
12 governmental agencies to ensure that all regulatory issues for  
13 restart of the units were resolved as promptly as possible following  
14 both Hurricanes Frances and Jeanne.

15  
16 **Q. What actions does FPL take to optimize the equivalent  
17 availability factors and heat rates for its nuclear GPIF units?**

18 A. The actions that FPL takes to optimize the equivalent availability  
19 factors of nuclear GPIF nuclear units are explained in response to  
20 the planned and unplanned outage questions above. The heat  
21 rates are optimized by monitoring the performance of the nuclear  
22 units to detect and determine the causes of any degradation.

1 Actual generation is compared to predicted generation and  
2 reported daily. Degradation is promptly corrected either through  
3 operating adjustments or on-line maintenance where possible.  
4 Issues that cannot be addressed on-line are added to the  
5 schedules for power reductions and outages. All four nuclear units  
6 are equipped with and operate on-line condenser tube cleaning  
7 systems to maximize unit efficiency.

8

9 **Turkey Point Transformer Fire**

10

11 **Q. Describe the circumstances surrounding the Turkey Point Unit**  
12 **4 main transformer fire occurring on June 27, 2005.**

13 **A. During the Spring 2005 refueling outage at Unit 4, the main**  
14 **transformer was replaced as part of FPL's preventive maintenance**  
15 **program because it was predicted to be reaching the end of its**  
16 **useful life. After two weeks of being in service, the new main**  
17 **transformer failed suddenly without warning. The failure resulted in**  
18 **the release of transformer insulating oil which ignited, triggering the**  
19 **deluge system. The Unit tripped due to the fire, and an Unusual**  
20 **Event was declared. The Unusual Event was terminated after the**  
21 **fire was extinguished. The failed transformer was severely**  
22 **damaged and not repairable.**

1 **Q. What was the cause of the transformer fire?**

2 A. The preliminary analysis of all available fault data indicates that the  
3 fault occurred internal to the transformer. There is no indication  
4 that an external fault initiated the event. The vendor is currently  
5 investigating the cause of the failure and will issue a report upon  
6 completion of its findings.

7

8 **Q. What was the duration of the unplanned outage?**

9 A. The outage duration was approximately 20 days.

10

11 **Q. What actions did FPL take to repair the transformer in order to  
12 bring Unit 4 back on-line as quickly as possible?**

13 A. As previously mentioned, the replacement transformer was not  
14 repairable and had to be removed from service. The original  
15 replaced transformer showed signs of aging but remained  
16 serviceable, so it was re-installed as an interim measure to restore  
17 service to Unit 4 while a new transformer is manufactured.  
18 However, due to the age of the original transformer, it required  
19 testing to ensure the safe and reliable operation of Unit 4.

20

1 **Q. What costs, if any, has or will FPL seek to recover through the**  
2 **fuel clause resulting from the transformer fire at Turkey Point**  
3 **Unit 4?**

4  
5 **A. FPL will not seek to recover any repair costs associated with the**  
6 **Turkey Point 4 transformer fire through the fuel clause. FPL does**  
7 **seek recovery via the fuel clause of the replacement power costs**  
8 **resulting from the outage of Unit 4 while the original transformer**  
9 **was being re-installed and tested. Ms. Dubin's testimony will**  
10 **discuss recovery of replacement power costs associated with this**  
11 **event.**

12  
13 **Nuclear Plant Security Costs**

14  
15 **Q. Please provide an update of the costs to comply with the NRC's**  
16 **Design Basis Threat (DBT) requirements.**

17 **A. At the time that it entered into the Proposed Resolution of Issue in**  
18 **Docket No. 040001-EI dated November 1, 2004, FPL projected that**  
19 **the DBT costs would total \$40.4 million. As of July 2005, FPL has**  
20 **spent approximately \$44.9 million on DBT related activities and**  
21 **anticipates additional expenditures of \$5.4 million to complete all**  
22 **known required DBT actions. The increases in DBT cost from the**

1 original estimates are reflected in the 2005 estimated/actual true-up  
2 amount filed on August 9, 2005 and are the result of industry  
3 experience and lessons learned during force on force (FOF)  
4 exercises. The implementation of the DBT considers both defense  
5 tactics and physical modifications. When an FOF drill is performed,  
6 new offensive tactics are developed. Based on the results of the  
7 drill, offensive strategy modifications may be necessary to address  
8 any short falls identified and costs increase from these changes.

9  
10 Based on the NRC's current interpretation of DBT requirements, FPL  
11 expects to complete its DBT related activities in 2005. I caution,  
12 however, the DBT process including the FOF drills, is continuing to  
13 evolve and may require additional modifications and the potential for  
14 security staff additions in the future.

15  
16

17 **Q. What is FPL's projection of the incremental security costs for**  
18 **the period January 2006 through December 2006?**

19 **A. FPL presently projects that it will incur \$21.6 in incremental nuclear**  
20 **power plant security costs in 2006.**

21

22 **Q. Please provide a brief description of the items included in this**  
23 **security projection for nuclear plant security costs.**

1 A. Items include additional security personnel resulting from  
2 implementation of the fatigue order which limits the amount of hours  
3 security personnel work in a week, personnel training and equipment  
4 and additional security system modifications. This \$21.6 million  
5 does not include any of the DBT costs discussed above because  
6 FPL expects to incur those costs in 2005.

7

8 **Q. Is there a possibility of further NRC security-related initiatives in**  
9 **2006 and beyond, in addition to those included in FPL's**  
10 **projection?**

11 A. Yes. FPL is aware of new NRC regulatory initiatives to revise  
12 requirements regarding fires, propose aircraft-threat strategy  
13 revisions, make potentially significant changes in requirements for  
14 protection of spent fuel pools, conduct a study in conjunction with  
15 The Department of Homeland Security to evaluate potential threats  
16 to nuclear facilities from land, sea and air method of attack, and  
17 conduct a study of buffer zones around nuclear sites. Finally,  
18 Congress has approved the Energy Bill that contains a section  
19 entitled "Nuclear Security" directing the NRC to revise the current  
20 DBT rules. The bill also includes provisions that require:

- 1           ● Periodic security response evaluations to assess the ability of a  
2           private security force of a licensed facility to defend against any  
3           applicable design basis threat.
- 4           ● Periodic “force-on-force” drills by the NRC to help refine the  
5           ability to protect the plant from intruders.
- 6           ● NRC assigns an employee as a federal security coordinator in  
7           each region.
- 8           ● Fingerprinting and criminal history record checks for individuals  
9           who are permitted access to safeguards information and  
10          unescorted access to a utilization facility or other radioactive  
11          material.

12

13          It is not feasible for FPL to estimate at this time the future costs  
14          required to comply with these developing regulatory requirements  
15          and their ongoing interpretation, but the Commission should be  
16          aware that nuclear security costs have a high potential to increase  
17          significantly based on the issues mentioned above.

18

19          **St Lucie Unit 2 Steam Generator Slewing**

20

21          **Q.    What is the current status of the St Lucie Unit 2 steam**  
22          **generators?**

1 A. Based on the results of the 2001 refueling outage, FPL employed  
2 the best industry expertise available to develop tube degradation  
3 projections. Those projections indicated a need to replace the steam  
4 generators in the 2010 to 2014 timeframe.

5  
6 Subsequently, the 2003 refueling outage inspection results indicated  
7 tube plugging at 9.2%, which was higher than expected based on  
8 prior experience. From this new information, FPL concluded that the  
9 steam generator replacement would need to be moved up to the  
10 2007 time frame. FPL ordered replacement steam generators for  
11 installation in the Fall of 2007 refueling outage.

12  
13 Unfortunately, the January 2005 refueling outage inspection  
14 revealed that the degradation rate was even more rapid than  
15 anticipated in 2003 and involved a degradation mechanism that had  
16 not previously been observed as significant. This additional tube  
17 degradation required FPL to increase the total number of plugged  
18 tubes from 9.2% to 18.9%, which substantially exceeded  
19 expectations. Based on these results, the current regulatory  
20 plugging limit of 30% could be exceeded at the next inspection in the  
21 Spring of 2006. My Document JRH-1 illustrates the rapid progress



1 of steam generator u-tube degradation at St. Lucie Unit 2 in recent  
2 years.

3

4 **Q. What does FPL believe is causing the accelerated steam  
5 generator tube degradation at St. Lucie Unit 2?**

6 A. The St. Lucie Unit 2 steam generator tubes are fabricated with  
7 alloy 600 mill-annealed tube materials. All steam generator tubes  
8 fabricated with this material are susceptible to cracking, primarily  
9 due to stress corrosion cracking (SCC) on the outer diameter of the  
10 tube. When inspections for these generators are performed during  
11 each refueling outage, tubes found to have corrosion cracking are  
12 taken out of service by plugging.

13

14 **Q. What are some consequences experienced in the industry as a  
15 result of accelerated tube degradation?**

16 A. Since 1989 there have been 43 industry forced outages due to tube  
17 leaks and 10 due to tube burst events.

18

19 **Q. What options did FPL consider to resolve the 30% plugging  
20 limit issue?**

21 A. Various options were evaluated to minimize the impact of the  
22 accelerated u-tube degradation on plant operation. These included:

1        Option 1: Implementation of plugging and sleeving repairs during the  
2        Spring 2006 refueling outage and replacement of the steam  
3        generators in the Fall of 2007, as previously planned.

4        Option 2: Various scenarios for expediting the delivery of the  
5        replacement steam generators and acceleration of installation.

6        Option 3: Implementation of an early refueling outage in the Fall of  
7        2005 to expedite the steam generators inspection and minimize the  
8        need for significant repairs. In parallel, expediting the delivery and  
9        installation of the replacement steam generators in time to avoid an  
10       additional inspection prior to the replacement.

11

12    **Q.     Which option has FPL decided to pursue and why?**

13    **A.     FPL has decided to proceed with Option 1. The next steam**  
14       **generator inspection will be in the Spring of 2006. Any degraded**  
15       **tubes identified during this inspection that exceed the 30% tube**  
16       **plugging limit will be repaired using the sleeving method. Sleeving is**  
17       **not used as the normal repair method because it is more costly and**  
18       **takes longer to implement. However, successful implementation of**  
19       **sleeving will allow the unit to continue to operate at 100% power until**  
20       **the steam generators are replaced in the Fall of 2007, as currently**  
21       **planned.**

22

1 Options 2 and 3 were less economically attractive than Option 1 and  
2 involved more risk.

3

4 **Q. What are the implications to exceeding the tube plugging limit  
5 of 30%?**

6 **A.** Tube plugging in excess of 30% will require FPL to operate the unit  
7 at a reduced power output of 89%.

8

9 **Q. What alternatives exist if the 30% limit is reached?**

10 **A.** FPL is currently pursuing NRC approval of an increased tube  
11 plugging limit up to 42%, as a contingency. If approved, the new  
12 limit would allow the units to continue to operate beyond the  
13 current 30% limit, but at a reduced power output of 89%. However,  
14 should the level of degradation require tube plugging beyond 42%,  
15 the unit would not be able to resume operation until a higher  
16 plugging limit can be analyzed and approved by the NRC. This  
17 scenario could result in operation at even lower power levels and  
18 significantly extended unit downtime (6-12 months) before  
19 operation could resume. Moreover, FPL cannot be certain at this  
20 time that the NRC will approve an increased tube plugging limit.

21

22 **Q. What is the estimated cost to complete the sleeving project?**

1 A. FPL has projected that it will spend an estimated \$30 million to  
2 complete this project. As discussed in Ms. Dubin's testimony, FPL is  
3 requesting to recover the \$30 million project cost through the Fuel  
4 Cost Recovery Clause.

5

6

7 **Reactor Pressure Vessel Head Inspection Status**

8

9 **Q. What is the status of the reactor heads for the St. Lucie and**  
10 **Turkey Point Units?**

11 A. As FPL has explained in prior testimony to the Commission, the  
12 NRC issued IEB 2002-02 on August 9, 2002 to address concerns  
13 related to visual inspections of the reactor heads. This bulletin  
14 resulted in all four FPL units being categorized as high susceptibility,  
15 requiring ultrasonic testing in addition to visual inspections until the  
16 reactor heads are replaced.

17

18 St. Lucie Unit 1 is scheduled to replace the reactor vessel head  
19 during the refueling outage beginning on October 17, 2005. The  
20 estimated duration of the outage is 60 days.

21

1 St. Lucie Unit 2 performed ultrasonic inspections during the refueling  
2 outage beginning on January 5, 2005. The total duration of the  
3 refueling outage was approximately 41 days. Indications were  
4 detected on the reactor vessel head that resulted in minor repairs on  
5 2 Control Element Drive Mechanism (CEDM) nozzles. Three CEDM  
6 nozzles were replaced; and inspections were completed on all  
7 nozzles. The repairs resulted in an additional 11 days to the outage.  
8 The total cost of the inspections and repairs was approximately  
9 \$12.2 million. FPL plans to perform ultrasonic inspections during  
10 the refueling outage in Spring 2006 while the steam generator  
11 sleeving project is being implemented. The St. Lucie Unit 2 reactor  
12 vessel head will be replaced in the Fall of 2007 along with the steam  
13 generators.

14

15 The Turkey Point Unit 3 and 4 reactor vessel heads were replaced  
16 during the refueling outages beginning on September 26, 2004 and  
17 April 10, 2005 respectively.

18

19 **Q. Does this conclude your testimony?**

20 **A. Yes it does.**

21

22

## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

## FLORIDA POWER &amp; LIGHT COMPANY

## TESTIMONY OF W.E. GWINN

DOCKET NO. 050001-EI

October 4, 2005

1 **Q. Please state your name and address.**

2 A. My name is Walter ("Skip") E. Gwinn. My business address is 700  
3 Universe Boulevard, Juno Beach, Florida 33408.

4

5 **Q. By whom are you employed and what is your position?**

6 A. I am employed by Florida Power & Light Company (FPL) as a  
7 Manager of Financial Performance in the Nuclear Business Unit.

8

9 **Q. Have you previously testified in this docket?**

10 A. No, I have not.

11

12 **Q. Please provide a history of your educational background and  
13 professional experience.**

14 A. I have been employed with FPL for 24 years of which 18 years within  
15 the Nuclear Division. I graduated with a Bachelor of Arts degree in  
16 Economics from the University of Miami in 1981. I began

1 employment with FPL in 1981 as an Internal Auditor primarily  
2 responsible for auditing the new construction segment of FPL. For  
3 the period 1984 through 1987, I was in Financial Accounting  
4 responsible for providing the accounting expertise during the  
5 development of FPL's accounting systems. In 1987, I joined the  
6 Property Accounting Group as a site accountant primarily  
7 responsible for the accounting function of the Cutler and Turkey  
8 Point nuclear and fossil plants. From 1993 through 1997, I worked in  
9 the Nuclear Business Services Organization. My role was primarily  
10 responsible for the coordination of regulatory filings, budget and  
11 financial modeling and analysis for the Nuclear Division. In 1998, I  
12 was promoted to Business Systems Manager at the Turkey Point  
13 nuclear plant. I was responsible for managing all Turkey Point  
14 financial activity including: accounts payable, accounts receivable,  
15 payroll, budgeting and cash forecasting. I was also responsible for  
16 the oversight of the Document Control and Procedures functions. In  
17 2005, I was promoted to my current position as Manager of Financial  
18 Performance responsible for the management of the overall Nuclear  
19 Division financial activity.

20

21 **Q. Are you sponsoring an exhibit?**

22 **A.** Yes. It consists of Document WEG-1.

1 BY MR. LITCHFIELD:

2 Q Mr. Gwinn, have you prepared a summary of your  
3 testimony?

4 A Yes, I have.

5 Q Would you please provide that at this time?

6 A Good afternoon, Commissioners. My testimony presents  
7 and explains FPL's projections of nuclear fuel costs for the  
8 thermal energy MMBtu produced by --

9 CHAIRMAN BAEZ: Mr. Gwinn, can I ask you to lean in a  
10 little bit, get a little closer to the mike. We can't hear  
11 you.

12 THE WITNESS: Sorry.

13 CHAIRMAN BAEZ: Thank you.

14 THE WITNESS: My testimony presents and explains  
15 FPL's projections of nuclear fuel costs for the thermal energy  
16 MMBtu to be produced by our nuclear units that is included in  
17 our fuel cost recovery filing.

18 My testimony also describes the St. Lucie Unit 2  
19 steam generator sleeving project which FPL is requesting to be  
20 recovered through the fuel cost recovery clause.

21 The St. Lucie Unit 2 steam generator tubes are  
22 fabricated with an Alloy 600 mill annealed tube material. All  
23 steam generator tubes fabricated with this material are  
24 susceptible to cracking primarily due to stress corrosion  
25 cracking on the outer diameter of the tube. When inspections



1 of these generators are performed during each refueling outage,  
2 tubes found to have corrosion cracking are taken out of service  
3 by plugging.

4           Based on the results of the 2001 refueling outage,  
5 FPL employed the best industry expertise available to develop  
6 two degradation projections. Those projections indicated a  
7 need to replace the steam generators at St. Lucie Unit 2 in the  
8 2010 to 2014 time frame. Subsequently, the 2003 refueling  
9 outage inspection results indicated tube plugging at  
10 9.2 percent, which was higher than expected based on prior  
11 experience. From this new information, FPL concluded that the  
12 steam generator replacement would need to be moved up to the  
13 2007 time frame, at which time FPL ordered the replacement  
14 steam generators for installation in the fall of 2007 outage.

15           Unfortunately, the January 2005 refueling outage  
16 inspection revealed that the degradation rate was even more  
17 rapid than anticipated in 2003. This additional tube  
18 degradation required FPL to increase the number of, the total  
19 number of plugged tubes from 9.2 percent to 18.9 percent, which  
20 substantially exceeded our expectations. Based on these  
21 results, the current regulatory plugging limit of 30 percent  
22 could be exceeded at the next inspection, which is in the  
23 spring of 2006.

24           Tube plugging in excess of 30 percent would require  
25 FPL to operate the unit at a reduced power output of

1 89 percent. Various options were evaluated to minimize the  
2 impact of the accelerated tube degradation on plant operation.  
3 FPL decided to pursue a combination of plugging and sleeving  
4 because it's the most economical plan. The next steam  
5 generator inspection will be in the spring of 2006. Any  
6 degraded tubes identified during this inspection that exceed  
7 the 30 percent tube plugging limit will be sleeved. Sleeving  
8 will allow the unit to continue to operate at 100 percent power  
9 until the steam generators are replaced in the fall of 2007 as  
10 currently planned. This concludes my summary.

11 MR. LITCHFIELD: Mr. Gwinn is available for  
12 cross-examination.

13 CHAIRMAN BAEZ: Mr. Beck.

14 MR. BECK: Thank you, Mr. Chairman.

15 CROSS EXAMINATION

16 BY MR. BECK:

17 Q Good afternoon, Mr. Gwinn.

18 A Good afternoon.

19 Q My name is Charlie Beck. Mr. Gwinn, I have some  
20 documents we received in discovery, and I'd like to pass, ask  
21 Mr. Poucher to pass them out and ask you some questions about  
22 them.

23 And, Mr. Chairman, I wonder if I could have these  
24 marked for identification.

25 CHAIRMAN BAEZ: My next number is 79, Mr. Beck.

1 MR. BECK: Thank you.

2 CHAIRMAN BAEZ: Now you said documents -- are  
3 those -- do you want -- is that a composite or --

4 MR. BECK: Yes, it's a composite.

5 CHAIRMAN BAEZ: We'll entitle those St. Lucie Unit  
6 2 Risk Assessment.

7 (Exhibit 79 marked for identification.)

8 BY MR. BECK:

9 Q Mr. Gwinn, have you had a chance to glance at the  
10 exhibit I passed out, Number 79?

11 A Yes, I have.

12 Q Could you turn to Page 2 of 5 of that exhibit. This  
13 is the page that says "Background." In the upper left-hand  
14 corner it has a picture of some tubes with some support plates.  
15 Do you see that there?

16 A Yes, I do.

17 Q Okay. And is that a diagram of the tubes which FPL  
18 proposes to sleeve after the plugging limit is met?

19 A That would be an example of the tubes, yes.

20 Q Okay. It says the degradation occurs at the  
21 interface between the tube and support plate; is that right?

22 A That's correct.

23 Q Could you explain in a little more detail what type  
24 of degradation occurs?

25 A In the steam generators the tubes are supported at

1 various levels by the support plates where the tube is actually  
2 supported by another structure. The corrosion mechanisms can  
3 lie between the support plate and the tube mechanism.

4 COMMISSIONER ARRIAGA: Mr. Chairman.

5 CHAIRMAN BAEZ: Mr. Gwinn, we're having a little bit  
6 of trouble hearing you on this side of the room.

7 THE WITNESS: I'm sorry.

8 COMMISSIONER BRADLEY: Is the mike on?

9 COMMISSIONER ARRIAGA: Do you have the mike on by any  
10 chance?

11 THE WITNESS: Yes, the mike is on.

12 CHAIRMAN BAEZ: There you go. I think you hit the  
13 spot there.

14 THE WITNESS: That does sound better. Yeah.

15 BY MR. BECK:

16 Q So do the tubes actually just sit on those support  
17 plates and that's where the degradation occurs?

18 A They don't, they don't sit on them. The support  
19 plates support the tubes inside the steam generators.

20 Q Now FPL plans to plug tubes that, that may be prone  
21 to cracking up to a limit of 30 percent of the tubes; is that  
22 correct?

23 A That is correct.

24 Q And then if during the 2006 outage you discover more  
25 tubes subject to, to cracking than the 30 percent, you're going

1 to sleeve those tubes in excess of that; is that right?

2 A That is correct.

3 Q Now sleeving, if I look at that diagram of the tubes  
4 on Page 2 of 5, does sleeving amount to putting a tube within  
5 those tubes that are there?

6 A Yes, it does.

7 Q Okay.

8 A It's actual modification to the existing tubes where  
9 a sleeve is input into the tube, rolled to expand and get a  
10 tight fit, but also allows the reactor coolant system fluids to  
11 flow through the steam generators.

12 Q Okay. So do they take the place then of those tubes  
13 they're inserted into?

14 A Yes.

15 Q Okay. And does it keep those tubes in -- once  
16 they're sleeved, it keeps them with the same capacity to have  
17 coolant pass through them as they did -- as if they didn't have  
18 any degradation?

19 A Well, it allows the reactor coolant to flow through.  
20 Our normal repair method is plugging the steam generator, which  
21 does not allow coolant to flow through.

22 Q Okay. Does that put the tube, does that put the tube  
23 in the same place as it would have been had it been not plugged  
24 and not being degrading?

25 A It allows the tube to remain in service.

1 Q Okay.

2 A Whereas, plugging takes the tube out of service.

3 Q Okay. Is it fair to call that then a repair to the  
4 tubes, the sleeving itself?

5 A No. That -- it's a, it's an actual modification to  
6 the tube. Our normal repair method for steam generators and  
7 within the industry is to plug the tubes, which takes the tubes  
8 out of service.

9 Q Okay. So by sleeving, it allows them to keep in  
10 service and keep performing that same function of allowing the  
11 coolant to go through, does it not?

12 A That's correct.

13 Q And how long will these tubes, once they're sleeved,  
14 remain in operation?

15 A They will remain in service for one refueling  
16 duration, one cycle. The same generators will be replaced in  
17 the fall of 2007 refueling outage.

18 Q So the purpose of the sleeving is to keep the tubes  
19 operational between the 2006 fuel outage and the 2007 outage  
20 when you're going to put a new steam generator in; is that  
21 right?

22 A Well, the purpose of the sleeving is to ensure that  
23 the safety of the, of the unit is maintained, as well as our  
24 ability to operate the unit at 100 percent power for the  
25 duration of the cycle.

1           In contrast, if we were, if we plugged in excess of  
2 the 30 percent, we would be forced to run the unit at a reduced  
3 power, approximately 89 percent.

4           Q     Okay. Could I ask you to turn to the next page,  
5 please, Page 3 of 5.

6           A     Yes, sir.

7           Q     Okay. It says you had two independent consultants  
8 look at the tubes at the St. Lucie 2 generators; is that right?

9           A     That's correct.

10          Q     By the way, there's two generators there, aren't  
11 there?

12          A     That's correct.

13          Q     Okay. And you expect both of them to need sleeving?

14          A     That's correct.

15          Q     Okay. Now Aptech and DEI are the two consultants  
16 that FPL retained to look at the tubes, at the generators; is  
17 that right?

18          A     That's correct.

19          Q     And toward the bottom of the page there's a little  
20 summary of what Aptech and DEI found, is there not?

21          A     Yes, there is.

22          Q     And is it true that both companies found that 420  
23 tubes needing sleeving per generator was the best estimate?

24          A     That's correct.

25          Q     They both came up with the same number for the best

1 estimate.

2 A Yes.

3 Q Okay. Could you turn to the next page, please, which  
4 is Page 4 of 5. This page gives a number of different  
5 scenarios that it looks at, does it not?

6 A Yes.

7 Q Okay. And under April 2006 there's a best, worst and  
8 a planning scenario, is there not?

9 A Yes, there is.

10 Q And the best is 400 sleeves per service generator?

11 A That's correct.

12 Q Okay. And the two consultants told you their best  
13 estimate was 420; right?

14 A That's correct.

15 Q Okay. The worst case is 600 sleeves per service  
16 generator or steam generator; is that right? The second column  
17 from the right.

18 A The 600 -- yes. 600 per steam generator. Yes.

19 Q And then the last column on the right is planning,  
20 and it's 1,000 sleeves per steam generator; is that right?

21 A That's correct.

22 Q Why is the planning view worse than what's labeled as  
23 the worst scenario?

24 A The -- my assumption is that in FPL's planning cycle  
25 we took a, you know, a greater than a worst-case scenario to



1 ensure that our planning cycle and all of our contingencies  
2 would be in place. Of course, we're only going to sleeve and  
3 plug the tubes that we find with indications during the  
4 refueling outage.

5 Q Okay. And going back to the best scenario, which is  
6 400 sleeves per steam generator, is that your -- that's FPL's  
7 best estimate of what's going to be required; is that right?

8 A That's correct, based on our industry experts.

9 Q Okay. And looking at that column for the best  
10 scenario, there's a number of \$14 million for Areva O&M and  
11 \$8.8 million for RFO O&M. Do you see them?

12 A Yes, I do.

13 Q Okay. Could you tell us what's included in the  
14 \$14 million for Areva?

15 A Well, it would be, it would be the sleeving of  
16 800 tubes, as well as all the training, the mock-up, the  
17 engineering, the deployment to the site and the actual field  
18 installation of 800 sleeves.

19 Q Okay. And is Areva actually going to do, perform the  
20 work?

21 A Yes.

22 Q Okay. And that's what FPL expects to have to pay  
23 them to perform those activities you just described?

24 A That's correct.

25 Q Okay. Then there's another \$8.8 million for a

1 refueling outage O&M. Do you see that?

2 A Yes.

3 Q What's that for?

4 A That would be our site, our site costs, our  
5 engineering, our site labor, our site support costs, other  
6 in-house engineering, the cost of performing the outage, our  
7 site labor and contracted labor.

8 Q Could you -- I'm really not that familiar with what  
9 site support costs are. What types of costs are included?

10 A That would be, that would include our field labor,  
11 our mechanics, our maintenance, our operations, our chemistry,  
12 our health physics people to ensure that the job is done  
13 safely, that sort of cost.

14 Q Okay. So those are generally FPL employees that are  
15 required during --

16 A They're both contractors and FPL.

17 Q Okay. FPL is asking for \$25 million for, in this  
18 case, to go through the fuel, fuel surcharge; is that right?

19 A That's correct.

20 Q Okay. Now aren't refueling costs normally, aren't  
21 they normally covered by base rates for refueling outages?

22 A Refueling outages are normally covered by base rates.

23 Q Okay.

24 A On the other hand, the sleeving project is a  
25 stand-alone unique, extraordinary expense that is not included

1 in FPL's outage budgets for the 2006 time period.

2 Q Okay. Is the \$8.8 million for the incremental or the  
3 additional length of the refueling outage over what FPL  
4 expected without sleeving, you know?

5 A I'm sorry. Would you rephrase, reask the question?

6 Q The \$8.8 million you have for the refueling outage  
7 O&M --

8 A Yes.

9 Q -- is that for the extension of the refueling outage  
10 beyond what would normally be required if there were no  
11 sleeving?

12 A That's included in there. It's also the site support  
13 cost. But, yes, the additional time to sleeve upwards to  
14 800 tubes would cause an outage extension over and beyond what  
15 a normal outage would be. That's correct.

16 Q Okay. Now the total listed for the best-case  
17 scenario is \$22.8 million; is that right?

18 A That's correct.

19 Q Okay. Why is FPL asking for \$25 million in this  
20 proceeding?

21 A FPL in our original estimate took the most  
22 conservative approach, which was 1,000 tubes per steam  
23 generator, which was the \$30 million estimate in the far  
24 right-hand side. After further review of the estimate, that  
25 estimate was reduced to \$25 million from \$30 million.

1 Q Okay. Did the estimates change or just the request  
2 of FP&L change?

3 A The estimate did not change, no. It was our request  
4 to reduce it to \$25 million.

5 Q Let me ask you to turn to Page 5 of 5, the next page.

6 A Okay.

7 Q Okay. And this document lists various cases, one of  
8 which is the base case. Do you see that under the case  
9 descriptions?

10 A Yes, I do.

11 Q Okay. And the base case is what is expected; is that  
12 right?

13 A That's correct.

14 Q Okay. Now the last column on the base case row lists  
15 some figures for outage lengths and sleeving costs. Do you see  
16 that?

17 A Yes, I do.

18 Q And then the header on that column says "Changes for  
19 Best/Nominal/Worst Cost." Do you see that?

20 A Yes.

21 Q Okay. Then under D for sleeving costs, it shows  
22 \$5 million, \$7 million, \$11 million for best, nominal and  
23 worst. Do you see that?

24 A Yes, I do.

25 Q Okay. Could you reconcile that with the numbers we

1 saw on the previous page concerning the cost for sleeving?

2 A I would have to, I would have to look into that. I  
3 would presume there again is a best case, a worst case and our  
4 planned, which is 1,000 tubes per steam generator.

5 Q Right. But aren't the three numbers there for best,  
6 nominal and worst considerably different from the costs on the  
7 previous page for sleeving costs?

8 A Those costs are only, those costs are only for the  
9 Areva aspect of the cost, our contractor. That's not  
10 all-inclusive of all of the costs associated with the project.

11 Q Okay. On the Page 5 of 5 for the best-case sleeving  
12 cost it shows \$5 million, does it not?

13 A Yes.

14 Q Okay. And if I go to the previous page under the  
15 best scenario and look under Areva, it shows \$14 million.

16 A Right. That's the incremental cost of the  
17 installation labor is what I believe it is. I would have to  
18 verify that. That's what I believe it is. It's just the  
19 actual installation cost of the tube, of the sleeving end of  
20 the tubes.

21 Q Okay. So that's like a subset, the numbers on Page 5  
22 of 5 --

23 A Is a subset of the larger numbers. Right. Under the  
24 Areva contract there's also mobilization, training, mock-ups,  
25 extensive engineering, et cetera.

1 Q Okay. There's a mention under the base case under  
2 "Notes for Nominal Cost," it talks about a T-hot reduction  
3 impact until the start of the next outage. Do you see that  
4 under B, under "Notes for Nominal Costs"?

5 A Yes, I do.

6 Q What is a T-hot reduction, if you know?

7 A No, I do not know.

8 MR. BECK: Okay. Mr. Gwinn, thank you. That's all I  
9 have now.

10 CHAIRMAN BAEZ: Mr. Perry.

11 MR. PERRY: Yes.

12 CROSS EXAMINATION

13 BY MR. PERRY:

14 Q Mr. Gwinn, my name is Tim Perry. I represent the  
15 Florida Industrial Power Users Group. I have a few questions  
16 for you today.

17 I'm going to make a series of statements to you, and  
18 if you could, I'd like for you to state whether you agree or  
19 disagree with the statement that I make.

20 A Okay.

21 Q Okay. Would you agree that plugging removes a tube  
22 from normal operation and does not allow it to continue to  
23 operate, operate normally?

24 A Yes, I would agree with that.

25 Q Would you agree that sleeving allows a tube to

1 continue to operate normally where otherwise plugging would  
2 not?

3 A Yes, I would.

4 Q Would you agree that you undertake the process of  
5 plugging or sleeving a tube because it's no longer operating  
6 normally?

7 A No. I would say that we, our normal maintenance is  
8 to plug a steam generator tube. It's not our normal  
9 maintenance to sleeve a steam generator tube.

10 Q But when you perform either plugging or sleeving, you  
11 would agree that you do so on a tube that is no longer  
12 operating normally.

13 A We would do so on a tube that has indications, and we  
14 would plug it or sleeve it to ensure safe operation and  
15 reliable operation of our plant, yes, sir.

16 Q Would you agree that sleeving will not allow the  
17 St. Lucie Unit 2 to generate more energy than before sleeving?

18 A It would not, no. St. Lucie Unit 2 will not generate  
19 more. It will be able to run at 100 percent. And if we have  
20 to plug our steam generator tubes greater than 30 percent, we  
21 would be forced to operate that unit until the replacement of  
22 the steam generators in 2007 at 89 percent power.

23 Q And it is the NRC that sets that 30 percent plugging  
24 limit for you; is that correct?

25 A That's correct.

1 Q And basically what you have done there at the  
2 St. Lucie Unit 2 unit is to plug these tubes from what was, I  
3 would imagine, 100 percent operation down to what is getting  
4 close to 70 percent in operation; is that correct?

5 A I'm sorry. I don't understand your question.

6 Q In other words, you have plugged close to 30 percent  
7 of the tubes at the St. Lucie --

8 A No. Our current -- St. Lucie on average of the two  
9 steam generators are plugged at just under 19 percent. It is  
10 anticipated that we could exceed the 30 percent plugging limit  
11 in the 2006 refueling outage.

12 Q So that if you don't sleeve tubes at that time, then  
13 you will go below the 30 percent plugging limit.

14 A No. We will, we will plug the tubes up to  
15 30 percent. We will sleeve the tubes anything over the  
16 30 percent. But our normal repair method is still plugging.  
17 We will plug to 30 percent.

18 Q Is, is plugging recovered through base rates or is  
19 that -- or are the costs of plugging recovered through the fuel  
20 clause?

21 A They are, they are a normal operating expense.

22 Q So they're recovered through base rates.

23 A That's my understanding, yes.

24 Q Let me ask you what your, what your definition of  
25 repair is as it relates to plugging.



1           A       Plugging is the industry and FPL's normal repair  
2 method for steam generators. It removes the tube from service,  
3 unlike sleeving, which allows the, which is a modification to  
4 the existing tube where the tube is able to provide its heat  
5 transfer function and allows the unit to operate at 100 percent  
6 power. Clearly not a repair. One is a modification. The unit  
7 can remain at 100 percent power. If I repair, I run at  
8 89 percent power.

9           Q       Would you agree with me that the normal dictionary  
10 definition of a repair is to take something from an inoperative  
11 state and to return it to an operative state?

12          A       I don't know if that has the bearing on this. In  
13 this case we're talking about the plugging which is normal  
14 would require the unit to operate at 89 percent power.  
15 Sleeving, which is a modification, an albeit more expensive  
16 than our normal repair method, allows the unit to operate at  
17 100 percent power, which, of course, is a significant fuel  
18 savings to our customers.

19          Q       Okay. I know -- well, you didn't exactly answer my  
20 question. What you said was that you didn't think that it was  
21 relevant. But I'm going to ask the question one more time  
22 again.

23                   Is your understanding, is your general understanding  
24 of the definition of repair to take something from an  
25 inoperative state and to return it to an operative state? And

1 I'm not talking about --

2 A No. No. I believe that the, the repair method does  
3 take the tube out of service. The sleeving method which is a  
4 modification allows it to remain in service.

5 Q Okay. If you had, let's say, a car that was not  
6 operating normally and you took it to a mechanic to be repaired  
7 and he returned it to you in an inoperative state, would you  
8 consider that he had repaired that car?

9 A No, I would not.

10 Q Okay. And if your car was in an inoperative state  
11 and you took it to the mechanic and he returned it to you in an  
12 operative state, would you consider that car to then be  
13 repaired?

14 A I would consider that car to be repaired, yes.

15 Q Okay. And by analogy, if the -- the plugging doesn't  
16 really change the, the operating status of a tube, isn't that  
17 correct, other than to make it inoperative?

18 A It takes the tube out of service.

19 Q Right.

20 A So it does change the configuration. The tubes are  
21 meant to be the heat transfer source for our reactor coolant  
22 system. By plugging it, you remove that tube from service.

23 Q And by sleeving it you're able to continue operating  
24 that tube?

25 A Right. In contrast where if we plugged it, we would

1 not be able to use that tube and would be forced, if we  
2 exceeded our 30 percent, to run at a reduced power.

3 Q Okay. Are you familiar with Ms. Dubin's testimony in  
4 this case?

5 A Yes.

6 Q Okay. And in her testimony she cites to a series of  
7 Commission decisions. There are three Commission decisions on  
8 Page 14. One is related to the Turkey Point 3 and 4 thermal  
9 power uprate. Are you familiar with, with that thermal power  
10 uprate?

11 A I'm familiar with the project.

12 Q Okay. Now as to that project, would you agree with  
13 me that after the Turkey Point 3 and 4 thermal power uprate,  
14 those units were able to operate better than before the uprate?

15 A They are -- they operated at a higher output, yes,  
16 sir.

17 Q She also cites to an order that refers to  
18 modifications to the Cape Canaveral, Fort Myers and Sanford  
19 units. Are you familiar with those modifications?

20 A No, I'm not.

21 Q Okay. And finally she refers to or cites to an order  
22 that discusses modifications that allow FP&L to burn  
23 low-gravity fuel. Are you familiar to, are you familiar with  
24 those modifications?

25 A No, I'm not.

1 MR. PERRY: Okay. I have no further questions.

2 CHAIRMAN BAEZ: Mr. Twomey -- Colonel, do you have  
3 questions? No?

4 LIEUTENANT COLONEL WHITE: No questions.

5 CHAIRMAN BAEZ: Mr. Lavia, no questions?

6 Mr. Twomey, you're rising. Do you have questions?

7 CROSS EXAMINATION

8 BY MR. TWOMEY:

9 Q Good afternoon, sir. I'm Mike Twomey representing  
10 AARP in this case.

11 A Good afternoon.

12 Q Mr. Gwinn, you're adopting the testimony of  
13 Mr. Hartzog; correct?

14 A That's correct.

15 Q Why exactly are you testifying in his stead as  
16 opposed to him being here?

17 A Mr. Hartzog is no longer with the company.

18 Q I see. So do you do essentially the same work as  
19 Mr. Hartzog now?

20 A That's correct.

21 Q Okay. Your title is a little different.

22 A Slightly different.

23 Q Okay. Do you agree your substitution for Mr. Hartzog  
24 came after the filing of Mr. Stewart's testimony, is that  
25 correct, or do you know?

1 A I'm not sure of that exact date.

2 Q Your educational background, graduate -- I mean, your  
3 college level includes a BA in economics; correct?

4 A That's correct.

5 Q Okay. Do you have degrees in either, any of the  
6 following: Engineering, nuclear physics or ceramic  
7 engineering?

8 A No, I do not.

9 Q Okay. Do you know, Mr. Gwinn, if Mr. Hartzog, whose  
10 testimony, direct testimony you've adopted, had any of those  
11 degrees I just mentioned?

12 A I'm not aware.

13 Q Mr. Gwinn, do you feel that you're qualified by  
14 education and/or experience to testify to all of the matters  
15 discussed in Mr. Hartzog's testimony?

16 A Yes, I do.

17 Q Okay. For example, in your direct testimony adopted,  
18 can you personally testify to what caused the Turkey Point Unit  
19 4 transformer fire?

20 A Yes, I can.

21 Q Now is that, is that based upon your professional  
22 evaluation of the fire or reading reports there related to the  
23 inspection following the fire?

24 A By gathering the facts associated with the event.

25 Q I'm sorry. By "gathering the facts associated with

1 the event," do you mean --

2 A Reading reports, et cetera.

3 Q Okay. You didn't -- it's not your job, if I  
4 understand your job, to actually review what the failure modes  
5 were of the transformer that resulted in a fire; is that  
6 correct?

7 A That's correct.

8 Q Okay. That's probably left to engineers in the  
9 company or with vendors; correct?

10 A That's correct.

11 Q Okay.

12 MR. LITCHFIELD: Mr. Chairman, may I make a comment  
13 at this point? And I'm not sure that I need to object, but  
14 maybe a point of clarification. I understood that the issue  
15 relative to the Turkey Point fire was no longer an issue in  
16 this docket. And then secondly, with respect to Mr. Gwinn's  
17 qualifications, it was my understanding that no party had  
18 contested Mr. Gwinn's petition to adopt Mr. Hartzog's  
19 testimony. So I'm a little puzzled why we would be exploring  
20 that now, and I'm not sure that that issue was raised by  
21 Mr. Twomey either at the prehearing conference.

22 MR. TWOMEY: I'm not, I'm not -- I haven't heard  
23 myself, Mr. Litchfield, suggest that he's not qualified. I  
24 just was asking a question. I'm just asking a question about  
25 the extent of his qualifications. I'm not suggesting --

1 CHAIRMAN BAEZ: Mr. Twomey, address the Chair. And  
2 so far, Mr. Litchfield, I think all he's doing is -- I mean, I  
3 don't know that your -- your objection, if that's what it was,  
4 was, was probably premature. I haven't heard Mr. Twomey --

5 MR. LITCHFIELD: At this point it's a question.

6 CHAIRMAN BAEZ: At this point they're just questions,  
7 although I do need some clarification, Mr. Twomey. There was  
8 the issue of the Turkey Point fire and it's been suggested that  
9 that's no longer an issue.

10 MR. TWOMEY: Well, I was just, I was asking -- I'm  
11 not suggesting that it is an issue, Mr. Chairman.

12 CHAIRMAN BAEZ: It was just a question?

13 MR. TWOMEY: Yes, sir.

14 CHAIRMAN BAEZ: Okay.

15 MR. TWOMEY: It was just a question to see based upon  
16 his BA in economics, which is listed in his vitae, whether he,  
17 the extent to which he was vouching for the facts of the fire,  
18 the causation or just the fact that it happened, and that the,  
19 the statements contained in Mr. Hartzog's testimony were based  
20 upon reading reports. And he answered my question.

21 CHAIRMAN BAEZ: Okay. Go ahead with your questions.

22 MR. TWOMEY: Thank you, sir.

23 BY MR. TWOMEY:

24 Q Now as I understand your testimony, sir, the  
25 January 2005 outage inspection required increased plugging from

1 9.2 percent to 18.9 percent; correct?

2 A That's correct.

3 Q On average for the two generators.

4 A That's correct.

5 Q Okay. Now the, the -- would I also be correct,

6 Mr. Gwinn, that the analysis of the, the causation of the  
7 stress corrosion cracking in the metal that's used in forming  
8 the tubes is an analysis, is the result of you reading a  
9 report, not doing an engineering analysis yourself; correct?

10 A That's correct.

11 Q Okay. Now if you, if you know, can you tell me  
12 briefly what physically is involved in the plugging of a tube?

13 A The plugging of the tubes involves inserting a, a  
14 plug which is capped at the top into the steam generator tubes,  
15 putting a robotic device into that cylinder, rotating that  
16 cylinder so it expands in place, which, of course, prevents  
17 fluids from entering that tube and takes the tube out of  
18 service.

19 Q I see. And by your explanation, would I be correct  
20 in assuming that only one end of a tube is plugged?

21 A No. Both ends of the tubes are plugged.

22 Q Okay. Both ends are plugged?

23 A Yes. That's correct.

24 Q How far -- how long is a plug?

25 A I'm not sure.



1 Q Okay. Do you know what the plugs are, what material  
2 they're made of?

3 A No, I do not.

4 Q Do you know how much time is consumed on average for  
5 each tube that's plugged?

6 A How much --

7 Q Time.

8 A It takes to plug the tube?

9 Q Yes, sir.

10 A I would, I would say approximately, you know, five,  
11 five to ten minutes.

12 Q Per tube or per end?

13 A Per plug.

14 Q Okay. Now by contrast, what mechanically is involved  
15 in the process of sleeving a tube? I heard your answer to  
16 Mr. Beck's question and I heard you say that there is a, a  
17 smaller tube or sleeve inserted in the failed tube; is that  
18 correct?

19 A That's correct.

20 Q And is it the full length of the, the tube or just --

21 A Well, only to the, a point of where the indications  
22 are.

23 Q Where the corrosion indications are?

24 A Correct.

25 Q Which is at the support point.

1 A Correct. In most cases that's correct.

2 Q Okay. And then I heard you say, I think, that  
3 there's something put inside and it's rolled so that --

4 A Similar to plugging, yes.

5 Q Okay. Now I heard Mr. Beck ask you, I think, whether  
6 a sleeved tube could handle the same volume of water as a tube  
7 that is functioning and not sleeved. Do you recall that  
8 question?

9 A No, I do not.

10 Q Well, let me ask you the question then. Isn't it  
11 true that of necessity the -- let me ask you, isn't it true  
12 that the diameter of a sleeved plug is less than an unsleeved  
13 plug, the interior diameter?

14 A Slightly, yes.

15 Q And doesn't it follow necessarily then that the  
16 volume of water at a given flow level would be less for a  
17 sleeved plug than an unsleeved plug?

18 A I'm not sure of the exact difference.

19 Q Okay. Fair enough.

20 A It would be a very small amount, but I'm not sure of  
21 the exact amount.

22 Q You don't know what percentage?

23 A No, I do not.

24 Q Okay. Now, Mr. Gwinn, it's my understanding further  
25 that it's FPL's intention to, in the spring of 2006 outage to

1 sleeve any tubes that require repairs and/or alteration,  
2 modification, whatever your terms you're going to use, that are  
3 in excess of the 30 percent plugging limitation; is that  
4 correct?

5 A That's correct. Our plan will be to sleeve steam  
6 generator tubes in excess of the 30 percent, which is our  
7 current license with the Nuclear Regulatory Commission.

8 Q Okay. Now again the last time y'all looked and the  
9 last time your vendors inspected the number of tubes that were,  
10 that were flawed and had to be plugged was 18.9 percent of the  
11 total; correct?

12 A That's correct. That's an average of both steam  
13 generators.

14 Q Do you still have -- was it Exhibit 79 that Mr. Beck  
15 handed out? Was that 79? Do you still have that?

16 A Yes.

17 Q Now you acknowledged to Mr. Beck, did you not,  
18 Mr. Gwinn, that the Aptech best estimate was 420, as was the  
19 DEI; correct?

20 A That's correct.

21 Q Okay. That was, from looking at Page 3 of 5, that's  
22 not withstanding the fact that AFTEC's range was 210 to 620,  
23 correct, and that DEI's was, was a greater range of from zero  
24 sleeveings to 1,730; correct?

25 A That's correct.

1 Q So I guess under DEI's estimation there's a  
2 possibility, whatever that number is, that the number of  
3 sleeves required to be accomplished could be zero; correct?

4 A That's a possibility.

5 Q Right. But you don't know, do you? Let me ask you,  
6 do you know what the percentage likelihood is from DEI's study  
7 that zero could be the outcome?

8 A I'm not aware of that.

9 Q Do you know what the percentage likelihood is that  
10 the 420 will be the likely outcome for DEI?

11 A No, I do not.

12 Q Isn't it true, Mr. Gwinn, that these, if I understand  
13 your testimony or someone else's, that these, these studies  
14 were done sequentially; that is, Aptech or one of them went  
15 first and then, in an abundance of caution apparently, FPL had  
16 the second company that was also experienced in this field  
17 perform their analysis as well. Is that correct?

18 A Yes. We had two vendors perform the analysis so we  
19 ensure we had the best results we could get.

20 Q Yes, sir. And they were sequential. And which one  
21 was first again?

22 A Aptech was first, followed by DEI, I believe.

23 Q And isn't it true, if you know, that DEI, in  
24 performing its analysis, had the benefit of AFTEC's study in  
25 the process?

1 A No, I don't believe that to be the case. They had  
2 our results from the refueling outage and both vendors received  
3 that analysis. No. They were independent analyses.

4 Q It's your testimony that, that DEI did not have any  
5 of the, the Aptech study?

6 A That's my understanding. I'd have to verify. That's  
7 my understanding.

8 Q And that --

9 A They had the test results from the refueling outage.

10 Q Yes, sir. And that the, let me be clear on this, the  
11 420 best estimate was actually stated in AFTEC's study?

12 A That's what I believe. Yes.

13 Q And that whether it's through coincidence or  
14 otherwise, despite its difference in the range, DEI came up  
15 with exactly the same number?

16 A I believe they're very close. I'm not -- I don't  
17 remember if they were exactly 420, but they were very close.

18 Q Yes, sir. But this exhibit, Page 3 of 5, says  
19 they're exactly the same; right?

20 A In this exhibit, yes. I thought you were asking me  
21 about the actual report.

22 Q Yes, sir. But just to be clear, you or somebody in  
23 FP&L took the 420 figure as best estimate --

24 A Yes.

25 Q -- from these respective studies.

1 A That's correct.

2 Q Okay. Now -- pardon me. On Page 4 of 5, if you'll  
3 turn over there, the, the, in the very first column it says  
4 Areva -- am I pronouncing it correctly, Areva?

5 A Yes. Areva.

6 Q It says "Areva O&M." Why are they calling it O&M?

7 A That was to differentiate between -- because of the  
8 short duration that the sleeves are going to remain in the  
9 steam generators, the accounting department at FPL deemed this  
10 project to be O&M. If it weren't for the short duration, it  
11 would have been a capital expense. So when this presentation  
12 was completed, they just made mention to the fact that it was  
13 classified as O&M and not a capital based on the length of time  
14 that the sleeves would be in the steam generators.

15 Q I see. Now Mr. Beck asked you about the, the best,  
16 the best scenario that is in the second column of numbers that  
17 involves 400 sleeves per steam generator to get the 30 percent  
18 plugging. Do you see that?

19 A Yes, I do.

20 Q Now the, the \$8.8 million that he asked you about in  
21 connection with the refueling, the RFO heading, I wasn't clear  
22 on what you told him and I wanted to try and ask you to clarify  
23 it for myself. That is the -- there is a certain portion of  
24 that \$8.8 million, is there not, that would be expended by FP&L  
25 during the 2006 spring outage irrespective of whether any

1 sleeving was done at all; correct?

2 A Not a portion of that. No, no portion of that money  
3 would be expended, if not for the sleeving project. Those are  
4 incremental costs of contractors and our site labor force to  
5 support the specific project of sleeving.

6 Q Okay. Now the -- it strikes me that the, the cost  
7 per sleeve, if my math is correct, gets smaller as you do more,  
8 is that correct, or do you know?

9 A They -- from, from just the Areva aspect of just the  
10 installation, it's approximately the same value. It's  
11 approximately \$3,700 per sleeve.

12 Q Okay. Now the -- and, again, you initially took for  
13 your planning scenario 1,000 sleeves per steam generator, which  
14 is 250 percent more roughly than your best-case scenario;  
15 correct?

16 A I don't have the percents in front of me. 400 --  
17 it's approximate.

18 Q It's two and a half times time 400 -- I'm sorry.  
19 1,000 is two and a half times 400; correct?

20 A Correct.

21 Q Okay. And that's the number that was originally  
22 submitted on September 9th, I believe, or whenever the --

23 A No. The original number submitted on November 9th  
24 was the planning number in the far right-hand column, which was  
25 1,000 sleeves per steam generator.

1 Q I'm sorry. That's what I meant. The \$30 million was  
2 the original figure.

3 A That's correct.

4 Q Which is 20 percent higher than what you're asking  
5 for now, the \$25 million.

6 A Correct.

7 Q Now the -- you told Mr. Beck, I think, that the, the  
8 estimate didn't change, just the amount requested changed.

9 A That's correct.

10 Q It dropped by \$5 million.

11 A That's correct.

12 Q And what was the, what was the, what was the  
13 rationale, if I may say so, for becoming less conservative than  
14 the company was initially?

15 A The, the review of the estimate was -- when the  
16 estimate was prepared, it included all costs associated with  
17 the steam generator maintenance plan for the 2006 refueling  
18 average, of which the original estimate contained the  
19 additional plugging and inspections required up to 30 percent.  
20 So that plugging, since that is our normal O&M repair method,  
21 that amount was removed in subsequent estimates. So we went  
22 from \$30 million to \$25 million.

23 Q Do you know why y'all didn't do that before you made  
24 your original filing?

25 A No, I do not.



1 Q Okay. They asked some of my questions. Let me run  
2 through these quickly and see what I don't have to ask.

3 Okay. Let me ask you this. The -- during the spring  
4 2006 outage, what corrective action on the steam generator  
5 project would FP&L take if the total previously plugged and  
6 those plugs, those tubes now requiring plugging was 5,039?

7 A I'm sorry. Could you repeat the question?

8 Q Yes, sir. If we give you -- if the Commission gives  
9 you the \$25 million you're requesting, it's charged to my  
10 clients and your other customers through their fuel adjustment  
11 charge increase. We get to, the company gets to the spring of  
12 2006, opens up the steam generator to inspect it during that  
13 outage and finds that the totality of plugs that have, or tubes  
14 that have already been plugged and those now requiring plugging  
15 only reaches 5,039. What would be the corrective action that  
16 FP&L would take?

17 A I'm sorry, Counselor. I don't understand the  
18 significance of the 5,039.

19 Q I'm sorry. I'm not trying to be tricky here. If  
20 you'll look at your, your exhibit that you adopted from  
21 Mr. Hartzog, your single exhibit, which is a chart, I guess, or  
22 whatever, a graph, it's titled "FPL Nuclear St. Lucie Unit  
23 2 Steam Generator's Tube Plugging."

24 A Yes.

25 Q Okay. If you look at the very top line, the dashed

1 line right above 5,000.

2 A Yes, sir.

3 Q It says, "St. Lucie Unit 2 plug limit 30 percent  
4 (5,040) tubes." Correct?

5 A That's correct.

6 Q Okay. So my number, 5,039, is one less than  
7 30 percent.

8 A Yes.

9 Q What would be the corrective action that FP&L would  
10 take with respect to the steam generators for St. Lucie Number  
11 2?

12 A We would plug the tubes up to that limit.

13 Q Okay. And it's my understanding that FP&L is not  
14 suggesting to the Commission that the plugging that would take  
15 place there is something that you should be compensated for  
16 through the fuel adjustment charge; is that correct?

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

18 Q Because that's what you or the company considers  
19 normal O&M; is that correct?

20 A Our company -- yes.

21 Q Yeah. Normal.

22 A Normal.

23 Q Okay. So -- and you told me, did you not, a few  
24 minutes ago that there is some possibility that there could be  
25 no tubes that require sleeving in the spring of 2006, did you

1 not? Isn't that a possibility?

2 A Based on the industry, it's a slight -- it's very  
3 remote. We are planning to sleeve. But there's a remote  
4 possibility that there would be no sleeving. That's correct.

5 Q Yes, sir. But you're only going to sleeve the tubes  
6 that require it.

7 A That's absolutely correct.

8 Q Now the -- isn't it true that if there were no  
9 sleeves to be required, that required -- no tubes that required  
10 sleeving, there would be no sleeving expense to be paid; is  
11 that correct?

12 A That's not correct. We would still have the  
13 significant planning costs, the modeling, the mock-ups and  
14 everything from the contractor to prepare for the refueling  
15 outage in the spring of 2006.

16 Q Even if you didn't have to do the sleeving, you would  
17 prepare for it and charge the customers for the preparation for  
18 work that didn't have to be done.

19 A We would still have a cost.

20 Q Okay. Now the -- what if, what if, what if there was  
21 no sleeving -- would, would the costs you'd have if there was  
22 no sleeving be in the neighborhood of the, like the  
23 \$8.8 million figure or would it be smaller or lesser than,  
24 smaller or greater than that from your, from the Exhibit 79?

25 A I believe it would be -- if there was no sleeving, it

1 would be less than that figure.

2 Q Less than 8.8?

3 A I'm not sure, but I believe it would be. Yes.

4 Q If you're the appropriate witness -- if the  
5 Commission gives you \$25 million to collect from your customers  
6 for a sleeving project and you only have to spend \$8.8 million  
7 or less, do you know what would happen with the remainder of  
8 that money?

9 A Well, I would assume that there's no sleeving. Our  
10 estimate for the \$25 million is based on 1,000 sleeves per  
11 steam generator. Of course, we would true-up the cost and only  
12 charge our customers the amount that we actually spent, if it's  
13 400 or 500 or 1,000.

14 Q What makes you think there's a true-up involved in  
15 that part? Do you know that to be a fact?

16 A Yes, I do. I believe that to be true.

17 Q Okay. Now the -- would you agree with me that the,  
18 the value of your, your cost-effectiveness analysis on how much  
19 money you're saving is dependent upon the cost of replacement  
20 power?

21 A That question would be better suited to be answered  
22 by the other fuel witness, Ms. Kory Dubin.

23 Q I see. Well, I'll ask her that question.

24 Let me ask you this. If, in fact, the analysis is  
25 dependent upon the cost of replacement power, would you agree

1 with me that if there's variability in the cost of replacement  
2 power due to the fuel costs associated with replacement power,  
3 that there's an uncertainty there with respect to the  
4 cost-effectiveness analysis?

5 A Again, that's not my -- that question would be better  
6 suited for the fuel witness, Ms. Kory Dubin.

7 Q Okay. Thank you. Now as I understand it, Mr. Gwinn,  
8 FP&L and you testifying for them don't know what the outcome  
9 will be at the NRC with your contingent, your request for a  
10 contingent increase in the plugging limit to 42 percent; is  
11 that correct?

12 A With any license amendment request there is some  
13 possibility that it will not be approved. But we are confident  
14 that we will get that amendment approved.

15 Q You're saying you're confident you will not?

16 A That we are confident we will.

17 Q Oh, you will. Okay. And what the company's -- what  
18 would the course of action be if you do get it approved?

19 A That is a, that license amendment is a contingency.  
20 Our plan is to sleeve steam generators for those tubes greater  
21 than 30 percent so we can continue to operate at 100 percent  
22 power, which, of course, produces the fuel savings to our  
23 customers. We would not utilize the 72 -- the 42 percent plug  
24 limit.

25 Q Okay.

1 A It is a contingency.

2 Q If you got it, you wouldn't use it?

3 A It is a contingency. We would not use -- our plan is  
4 to sleeve the steam generators.

5 Q Yes, sir. Okay. Is it your opinion, if you have  
6 one, that the sleeving of the St. Lucie 2 steam generators, if  
7 it, in fact, is required, is a prudent action for your company  
8 to take?

9 A Yes, it is.

10 Q Would you agree with me, if you're in a position of  
11 stating, that a responsible electric utility would perform the  
12 required sleeving irrespective of whether the costs were  
13 allocated to base rates or to recovery through the fuel  
14 adjustment clause?

15 A Yes, we would.

16 MR. LITCHFIELD: Object to the question to the extent  
17 it calls for a legal conclusion.

18 CHAIRMAN BAEZ: Overruled. Answer the question, sir.

19 MR. TWOMEY: I think he said -- I think he answered  
20 it.

21 CHAIRMAN BAEZ: Did he answer it?

22 MR. TWOMEY: I think he said yes.

23 CHAIRMAN BAEZ: Then the answer stands then.

24 BY MR. TWOMEY:

25 Q Now -- I'm about to finish, Mr. Gwinn.

1           Would you agree with me that there is a fair amount  
2 of uncertainty with what is going to be required in this  
3 project at this point, at this time?

4           A     I'm sorry. I don't understand your question.

5           Q     Let me be more specific.

6           A     Yes, please.

7           Q     Let's recap. Isn't it, isn't it true that between  
8 your two vendors who've analyzed this situation and the state  
9 of your steam generators on this unit that there was a wide  
10 variability on the number of tubes that they thought might  
11 require sleeving?

12          A     Yes.

13          Q     Okay. So in consequence, isn't it true that you  
14 don't know, the company doesn't know whether it'll have to  
15 sleeve 1,000 tubes per unit, 600, or in the range of the  
16 best-case scenario, the most optimistic, 400; isn't that  
17 correct?

18          A     That's correct. We do not know the exact number of  
19 tubes requiring sleeving.

20          Q     And likewise, since we don't -- and this touches on  
21 what you can't testify to. But assuming, if you would, for the  
22 purpose of my question that there was a, some variability or  
23 volatility in the cost of, of the replacement power you'd have  
24 to purchase if the unit stayed out longer than was planned on  
25 this unit, isn't it true that there's some variability in the

1 value assigned to your cost-effectiveness analysis?

2 A That question I will defer to Ms. Kory Dubin.

3 Q Okay. Given just the uncertainty we've discussed,  
4 wouldn't all that uncertainty be reduced, be greatly reduced,  
5 if not all of it reduced, if the company went ahead and  
6 conducted the prudent repairs that were required and came to  
7 the Commission after the fact with precise dollar requests and  
8 reports and investigations of a consummated repair activity?  
9 Don't you agree with me that there would be a substantial  
10 amount of certainty on what you're claiming, not only what  
11 you're claiming you have to do but what you did; don't you  
12 agree that's the case?

13 A No, I do not. FPL is taking the prudent course of  
14 action to, to sleeve the steam generator tubes to allow it to  
15 run at 100 percent power. The cost will be trued up based on  
16 the actuals after the spring 2006 average. But I do not agree.  
17 We are taking the prudent action.

18 Q I'm not -- I didn't mean to suggest that you weren't  
19 taking the prudent action. The thrust of my question,  
20 Mr. Gwinn, is that if you have two possible scenarios and you  
21 come to the Commissioners and you say which will you prefer,  
22 you have one choice out of two, I'm going to tell you that  
23 we're going to take -- we've already taken at one point in our  
24 filing and we've taken 250 percent of what our vendors think is  
25 the best-case scenario, most likely scenario, and we've reduced



1 that by \$5 million. We want you to give us \$5 million because  
2 we think we're going to have to sleeve something ranging from  
3 zero to several thousand sleeves, and we want the money upfront  
4 on top of the \$2.2 billion or whatever that number is that the  
5 company is already asking to flow through to its customers in  
6 the fuel adjustment increase. Or say to them would you prefer  
7 the certainty of us doing the work, documenting the hours,  
8 vendor bills to be audited by the staff and Office of Public  
9 Counsel and others so we can tell you with absolute certainty  
10 that we had to sleeve 634 units, it cost us X, and we saved the  
11 following amount of money based upon the purchased power costs  
12 that we would otherwise have had to purchase at the time. Now  
13 if you asked the Commissioners that question, what do you think  
14 they would reasonably say?

15 A That's not my area. I --

16 MR. TWOMEY: Okay. That's all I have. Thank you.

17 CHAIRMAN BAEZ: Ms. Rodan.

18 MR. ROJAS: Staff has no questions.

19 CHAIRMAN BAEZ: Commissioners, any questions of  
20 Mr. Gwinn? Mr. Litchfield, redirect.

21 MR. LITCHFIELD: Thank you, Mr. Chairman.

22 CHAIRMAN BAEZ: I'm sorry. Let me make sure that  
23 none of the other Intervenors had questions. I may not have  
24 gone through the whole list. Apparently not.

25 Go ahead, Mr. Litchfield. I'm sorry.

## REDIRECT EXAMINATION

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BY MR. LITCHFIELD:

Q Mr. Gwinn, are plugging costs budgeted in FPL's normal O&M budgets?

A Yes, they are.

Q And are sleeving costs budgeted in FPL's normal O&M budgets?

A No, they're not. This upcoming sleeving project is the first time for FPL, and it is not included in our, our base O&M or our outage cost budgets for 2006.

Q Now it's characterized as O&M. I believe you referenced that in an answer to one of my colleague's questions here. Is it O&M or is it capital? What is it?

A It's O&M because of the short duration that the sleeving tubes would be in service; only one, one cycle of operation. If not for the short duration of life, it would have been classified as a capital improvement to the St. Lucie plant.

Q Now if FPL were to conduct normal repairs, i.e., plugging on the steam generator, what would be the maximum output of the unit?

A If FPL plugged greater than the 30 percent, the maximum output of the unit would be 89 percent power.

Q And if FPL sleeves the tubes, what will be the maximum output of the unit?

1           A     The unit will be able to operate at its designed  
2 output of 100 percent.

3           Q     Now Mr. Perry asked you or referred you to some  
4 upgrades that the company performed in the past, and I think he  
5 asked you whether, compared to not upgrading the plant, the  
6 uprate would produce a betterment of the plant. Do you recall  
7 that question?

8           A     I vaguely recall that question.

9           Q     Here the company has two options, doesn't it? It can  
10 plug or it can resleeve. Would you agree with that?

11          A     Yes.

12          Q     Now does sleeving result in a betterment of the asset  
13 relative to the alternative, which is to plug?

14          A     Absolutely. It allows the asset to remain in  
15 service. The plugging takes the tubes out of service. So  
16 absolutely.

17          Q     And to operate at a higher output than the  
18 alternative?

19          A     Yes. 100 percent power versus the 89 percent.  
20 That's correct.

21          Q     What is FPL's best estimate of the costs to sleeve at  
22 this point?

23          A     Our best estimate at this point is \$25 million.

24               MR. LITCHFIELD: That's all I have, Mr. Chairman.

25               CHAIRMAN BAEZ: Can I ask you a question, Mr. Gwinn?

1 And I don't know if they -- you, you are currently seeking  
2 maybe a, call it a rule variance with NRC to up the 30 percent  
3 plugging limit.

4 THE WITNESS: Yes. A license amendment request to  
5 sleeve up to 42 percent.

6 CHAIRMAN BAEZ: All right. And how -- and, again,  
7 maybe they asked this question. I just didn't hear the  
8 response. How does that affect your policy of plugging up to  
9 the limit? I mean, would that continue?

10 THE WITNESS: No. We will still plug up to the  
11 original limit of 30 percent, and then we will sleeve the  
12 plugs, I mean, sleeve the tubes in over the 30 percent. That  
13 allows us to operate at the 100 percent power.

14 CHAIRMAN BAEZ: Okay. Because the -- your ability to  
15 operate at 100 percent power is not tied to the license, but  
16 rather to the physical, to the physical limit of 30 percent; is  
17 that --

18 THE WITNESS: That's correct.

19 CHAIRMAN BAEZ: Okay.

20 MR. LITCHFIELD: I have nothing further, Mr.  
21 Chairman.

22 COMMISSIONER ARRIAGA: I have a question.

23 CHAIRMAN BAEZ: Commissioner Arriaga.

24 COMMISSIONER ARRIAGA: Mr. Gwinn, if the NRC grants  
25 you the authority to modify or amend the contract and you go

1 ahead and plug up to 42 percent, what output does the steam  
2 generator have, 100 percent or 89 percent?

3 THE WITNESS: The -- if we plugged up to 42 percent,  
4 we could not operate the unit at more than 89 percent. It  
5 could be less, it could be, you know, right at 89. That all is  
6 an analysis that we won't know until the actual review is  
7 complete. But 89 percent power.

8 But our plan is to sleeve -- is to plug only up to  
9 the 30 percent and then to sleeve the tubes in addition so we  
10 can run at 100 percent power.

11 COMMISSIONER ARRIAGA: Is sleeving a usual  
12 technology? Is it something that is usually done in nuclear  
13 power plants?

14 THE WITNESS: No, it's not. It's done rarely. The  
15 normal repair method for steam generators is plugging.

16 COMMISSIONER ARRIAGA: Well, then why are you  
17 pursuing it if it is something that is not done on a normal  
18 basis? Is it, is it a technology that is new that hasn't been  
19 tried out?

20 THE WITNESS: Oh, no. This technology has been used  
21 in, in other steam generators. The reason we're applying this  
22 new technology for us is because, to get us from the 2006  
23 refueling outage to the replacement, when we replace the steam  
24 generators in 2007. It will allow us to run at 100 percent  
25 power and generate safe, cost-effective operation for our

1 customers.

2 COMMISSIONER ARRIAGA: But is it technology that is  
3 usually utilized here in the states, in the United States?

4 THE WITNESS: It's been practiced in the United  
5 States and abroad.

6 COMMISSIONER ARRIAGA: But it's not experimental  
7 technology, that's what I'm --

8 THE WITNESS: Oh, absolutely not. Absolutely not.

9 COMMISSIONER ARRIAGA: Okay. Thank you.

10 CHAIRMAN BAEZ: If there's no questions, we can take  
11 exhibits. I'm showing 18.

12 MR. LITCHFIELD: Yes. I would move 18.

13 CHAIRMAN BAEZ: Without objection, show 18 moved.

14 (Exhibit 18 admitted into the record.)

15 CHAIRMAN BAEZ: And, Mr. Beck, I'm showing 79.

16 MR. BECK: I believe 79.

17 MR. LITCHFIELD: No objection.

18 CHAIRMAN BAEZ: Without objection, show 79 admitted.

19 (Exhibit 79 admitted into the record.)

20 CHAIRMAN BAEZ: Thank you, Mr. Gwinn. You're  
21 excused.

22 MR. BUTLER: Are you wanting to go on to the next  
23 witness or is this a good stopping point?

24 CHAIRMAN BAEZ: I'm not sure. I was going to say,  
25 you got one over on the Chairman and you scratched him for 15

1 minutes today. And I know that other Commissioners are happy  
2 about that. I don't know if we can gain anything by getting  
3 Ms. Dubin up. It doesn't look like we're going to get any  
4 party done with the questioning. So this is as good a time as  
5 any to break for the evening. And remember that we agreed to  
6 start up at 9:00 tomorrow. And if there's any -- if there's  
7 nothing that we need to address before we break -- Mr. Perry.

8 MR. BUTLER: Okay.

9 CHAIRMAN BAEZ: Hold on. We're not adjourned yet,  
10 people. Hang on.

11 MR. BUTLER: We'll do it tomorrow morning. There's a  
12 stipulation I think we have, but it'll be better just to do it  
13 the first thing in the morning.

14 CHAIRMAN BAEZ: Take it up first thing. Very well.  
15 We're adjourned for the evening.

16 (Proceeding in recess at 5:56 p.m.)

17 (Transcript continues in sequence with Volume 4.)

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

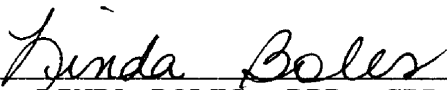
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I, LINDA BOLES, RPR, CRR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

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 15TH DAY OF NOVEMBER, 2005.

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