**FLORIDA PUBLIC SERVICE COMMISSION**

 **Fletcher Building**

 **101 East Gaines Street**

 **Tallahassee, Florida 32399-0850**

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

 **REVISED**

 **September 22, 1994**

**TO : DIRECTOR, DIVISION OF RECORDS AND REPORTING**

**FROM : DIVISION OF AUDITING AND FINANCIAL ANALYSIS (LEE, BASS, BINGHAM, JOHNSON, MEEKS, HICKS, NEIL, REVELL)**

 **DIVISION OF ELECTRIC AND GAS (BOOKER, TAYLOR)**

 **DIVISION OF LEGAL SERVICES (ELIAS)**

**RE : DOCKET NO. 931142-EI - FLORIDA POWER CORPORATION - REQUEST FOR APPROVAL OF 1993 DEPRECIATION STUDY BY FLORIDA POWER CORPORATION**

**AGENDA : 10/04/94 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE**

**CRITICAL DATES: NONE**

**SPECIAL INSTRUCTIONS: I:\PSC\AFA\WP\931142.RCM**

 **R:FPCRSPR1 - Attachment A**

 **R:FPC4 - Attachment B & D**

 **R:FPCRECSC - Attachment C**

 **R:FPC6 - Attachment E**

 **R:FPC5 - Attachment F**

 **DISCUSSION OF ISSUES**

**ISSUE** : Should the current depreciation rates, amortization schedules and dismantlement provision for Florida Power Corporation (FPC or Company) be changed?

**RECOMMENDATION**: Yes. A review of the Company's plans and activity indicates the need for revising depreciation rates, capital recovery schedules and dismantlement provision. (LEE)

**STAFF ANALYSIS**: FPC's current depreciation rates, amortization schedules and dismantlement provision were approved effective December 1, 1990. In keeping with Rule 25-6.0436, Florida Administrative Code, the Company filed a quadrennial comprehensive study covering the dismantlement and depreciation requirements. Since the time of the last represcription, changes brought about by Company activity and planning suggest the need to review and revise rates, recovery schedules and dismantlement accruals where appropriate.

**ISSUE 2:** What should be the implementation date for the recommended rates, recovery schedules and dismantlement provision?

**PRIMARY RECOMMENDATION:** Staff recommends that the capital recovery schedules addressing the retirements planned for Avon Park, Higgins, and Turner be implemented January 1, 1994. New depreciation rates, dismantlement accruals, and amortization of the carrying charges associated with the Extended Cold Shutdown units should be implemented January 1, 1995. (LEE)

**ALTERNATE RECOMMENDATION:** Staff recommends approval of the Company's proposed January 1, 1995 date of implementation for the new depreciation rates, capital recovery schedules and dismantlement accruals. (MEEKS)

**PRIMARY STAFF ANALYSIS:** From the theoretical standpoint, depreciation rates or recovery schedules should be adjusted at any time the need is perceived. In this review, we see two classes of need. There are investments facing near-term retirement that were unforeseen in the last study. There are also investments which are relatively viable, but which have rates that may be either too high or too low.

 Staff is of the opinion that recommended recovery schedules covering those planned retirements unforeseen in the last study be implemented January 1, 1994. These schedules relate to the investments at Avon Park, Higgins and Turner that are now planned for near-term retirement as discussed in Issue 3. Implementation in 1994 will allow the recovery of these unrecovered costs to be spread over a longer period of time thus having a more smoothing effect.

**ALTERNATE STAFF ANALYSIS:** Company data and related calculations abut the January 1, 1995 date. This is the recommended date of implementation, being the earliest practicable date for utilizing the revised rates and schedules.

**ISSUE 3**: What are the appropriate amortization and recovery schedules?

**PRIMARY RECOMMENDATION:** The Staff recommended recovery schedules are shown on Attachment A, page 16. These recovery schedules reflect implementation January 1, 1994 and are designed to recover the net investments related to the retiring assets at the Avon Park, Higgins and Turner Plants. To the extent the Company's plans change and substantially more plant will be retired or reused, the Commission should be advised so appropriate recovery revisions can be provided. Also, prior to the repowered Higgins and Turner Plants becoming operational, FPC should submit a study addressing new depreciation rates based upon expected lives for the repowered investments.

 The Staff recommended amortization schedules for the Extended Cold Shutdown (ECS) carrying charges are shown on Attachment B, page 17, and reflect implementation January 1, 1995. (LEE)

**ALTERNATE RECOMMENDATION:** The Staff recommended recovery schedules are shown on Attachment C, page 18. These recovery schedules reflect implementation January 1, 1995 and are designed to recover the net investments related to the retiring assets at the Avon Park, Higgins and Turner Plants. To the extent the Company's plans change and substantially more plant will be retired or reused, the Commission should be advised so appropriate recovery revisions can be provided. Also, prior to the repowered Higgins and Turner Plants becoming operational, FPC should submit a study addressing new depreciation rates based upon expected lives for the repowered investments.

 The Staff recommended amortization schedules for the Extended Cold Shutdown (ECS) carrying charges are shown on Attachment B, page 17. (MEEKS)

**PRIMARY STAFF ANALYSIS:** The recommended recovery schedules reflect the most current Company plans regarding the near term retirement of the Avon Park plant and the conversion of Higgins and Turner to natural gas.

 Avon Park has been on "extended cold shutdown" (ECS) since 1984. There are no plans to repower this unit and partial dismantlement through asbestos abatement is scheduled for 1994. Current Company plans are to completely dismantle this plant by the end of 1995. Based on this, Staff recommends the recovery of the associated unrecovered investment over a two year period beginning January 1, 1994. This net investment does not include any provision for dismantlement as those related costs will be recovered through the dismantlement reserve.

 The Higgins and Turner oil fired steam plants were placed in ECS status in January 1994 due to their low capacity factors and high operational costs. FPC's current Integrated Resource Plan indicates that these plants will be converted to combined cycle operation fueled by natural gas beginning during the year 2000. The repowering is anticipated to utilize major equipment assets such as the turbine, generator, substation and other site equipment. Some equipment such as boilers and stacks may require dismantlement. Again, as with Avon Park, any incurred dismantlement costs will be charged to the dismantlement reserves for each of these plants.

 Staff agrees with the concept of a recovery schedule addressing the assets not considered viable for reuse during the repowering of Higgins and Turner, however, we recommend implementation January 1, 1994 as discussed in Issue 2. A 5.5 year and a 6.5 year recovery period, respectively, matches the remaining service life of these retiring assets and is also recommended. If the situation changes and substantially more plant will be retired in connection with repowering or more plant will be reused, the Company should advise the Commission so appropriate recovery revisions can be provided. Also, prior to the repowered plants becoming operational, FPC should submit a study addressing new depreciation rates based upon expected lives for the repowered investments.

 In 1984 and by Order No. 13771, Docket No. 830470-EI, FPC placed 16 combustion turbines in ECS status. These units were removed from plant in service and the Company was allowed to accrue and capitalize AFUDC until each of the units returned to service. As of January 1, 1995, all ECS turbines have returned to service and FPC has been amortizing the associated carrying charges over the currently prescribed remaining life of each unit. The amortization period for each unit should be revised to reflect the remaining lives the Commission approves in this proceeding. Those periods shown on Attachment B, page 17, reflect the remaining lives Staff is recommending as appropriate for each unit effective January 1, 1995.

**ALTERNATE STAFF ANALYSIS:** The recommended recovery schedules reflect the same schedules as discussed under the Primary Staff Analysis with the exception of the implementation date. Attachment C, page 18, shows these schedules and reflects resultant expenses with a January 1, 1995 implementation date. Under this scenario, the unrecovered costs associated with Avon Park will be recovered over one year; the unrecovered costs associated with the assets planned for retirement in connection with the repowering of the Higgins and Turner Plants will be recovered over 4.5 years and 5.5 years, respectively. These time periods match recovery to the remaining service lives of the retiring assets measured from January 1, 1995.

**ISSUE 4:** What is the appropriate provision for fossil fuel dismantlement?

**RECOMMENDATION:** The appropriate four year average annual accrual beginning in 1995 for FPC's fossil fuel dismantlement is approximately $15.7 million. The recommended accrual is an $8.3 million decrease from the current accrual. Much of the decline in the accrual is related to a reduction in FPC's estimate of the cost of dismantling its steam plants. (NEIL, LEE)

**STAFF ANALYSIS:** Staff recommends a $15.7 million four year average annual dismantlement accrual until the next fossil fuel dismantlement study. The accrual was calculated based on the methodologies established in Order No. 24741, the investigation of the ratemaking and accounting treatment for the dismantlement of fossil fueled generating stations.

 The Company proposed an accrual of $16.4 million based on its dismantlement study filed in December 1993. After making several adjustments, a four year average annual accrual of approximately $15.7 million has been calculated. The decline from the current $24.1 million accrual to the $15.7 million recommended accrual can primarily be attributed to changes in the costs provided by FPC in its current dismantlement study. While the costs of dismantling the Company's gas turbines has increased when comparing the new study to the study filed in Order No. PSC-92-1197-FOF-EI (Docket No. 910890-EI), the estimated costs of dismantling the Company's steam plants has declined.

 The decrease in the Company's estimated cost of dismantling its steam plants is primarily attributed to 1) a change in the manner in which the steam plants have been analyzed; 2) a change in the contingency factor from 20% to 15%; and 3) the changes in inflation rates and capital recovery dates. In regards to the change associated with the way the steam plants have been analyzed in this current study as compared to the last, the previous dismantlement study began with a site study of the Bartow steam unit. The resulting costs to dismantle the Bartow unit were then used as a basis to estimate the dismantlement costs for the other steam sites. Because the asbestos abatement costs at the Bartow unit are relatively extensive, this method caused estimated asbestos removal costs at all of the other steam sites to also be costly. In the current study, the analysis was performed on a site by site basis. The site specific cost of removing asbestos is lower than the costs expected for the Bartow unit.

y Besides the affects of the site specific studies, another reason for the decrease in the current estimated cost of dismantleemnt is attributed to the recognition of using power-operated shears in the dismantling process. The previous study did not take this technology into account. The use of power shears decreases the labor hours needed for dismantlement.

 The adjustment from the $16.4 million filed by the Company to the $15.7 million recommended by Staff is due to several factors. The inflation rates have been updated to reflect the most current DRI Review of the U.S. Economy - Long Range Focus available, and the same indices used in the previous study are applied to the current dismantlement study. Also, a few miscalculations made in the Company's spreadsheet for determining the accrual were corrected. Finally, the accrual calculation for the Turner and Higgins steam plants has been modified to recognize current planning for repowering. The Company has estimated the dismantlement costs that will be incurred in connection with the 1999 repowering process. Assuming that repowering will extend the life of these plants at least 20 years, the capital recovery date for dismantlement costs associated with the remaining assets has been modified. This has caused a decline in the current estimate of the four year average annual accrual for these plants since a large portion of the dismantlement costs has been deferred to a later period.

 Additionally, the Company has reallocated the miscellaneous dismantlement reserve of $10,947,840 to offset the residual unrecovered costs associated with the dismantlement of Inglis ($151,368). The remaining dollars have been allocated between Avon Park, Turner and Higgins.

 In summary, Staff recommends that the four year average annual accrual for fossil fuel dismantlement beginning in 1995 is approximately $15.7 million. Most of the decrease from the current $24.1 million accrual reflects the results of the site specific dismantlement studies the Company performed for each of its fossil-fueled plants. The Company is in agreement with the changes made to its $16.4 million filing to reach the Staff recommended $15.7 million.

**ISSUE 5:** What are the appropriate depreciation rates?

**PRIMARY RECOMMENDATION:** The Staff recommended lives, net salvages, reserves and resultant depreciation rates are shown on Attachment D, pages 19-22. These rates result in an increase in annual depreciation expense of approximately $1.8 million based on estimated January 1, 1995 investments as shown on Attachment E, pages 23 - 27. In addition, the recommended recovery and amortization schedules result in an increase in annual expense of about $2.7 million and the provision for dismantlement results in an annual decrease of about $8.3 million. The overall impact of this recommendation for 1995 is, therefore, a decrease in annual expense of about $3.8 million. This assumes a January 1, 1994 implementation for recommended recovery schedules as shown on Attachment E, page 28. (LEE)

**ALTERNATE RECOMMENDATION:** The Staff recommended lives, net salvages, reserves and resultant depreciation rates are shown on Attachment D, pages 19-22. These rates result in an increase in annual depreciation expense of approximately $1.8 million based on estimated January 1, 1995 investments as shown on Attachment F, page 29. In addition, the recommended recovery and amortization schedules result in an increase in annual expense of about $3.8 million and the provision for dismantlement results in an annual decrease of about $8.3 million. The overall impact of this recommendation, therefore, is a decrease in annual expense of about $2.7 million. This assumes a January 1, 1995 implementation for recommended recovery schedules as shown on Attachment E, page 28. (LEE, MEEKS, BINGHAM, BASS, JOHNSON)

**PRIMARY STAFF ANALYSIS:** Staff's recommendations are the result of a comprehensive review of the Company's depreciation study. Attachment D shows a comparison of the currently approved, Company revised proposed and Staff recommended rate parameters (lives, salvages, and reserves). Attachment E shows a comparison of resultant expenses.

 The major differences between the Company and Staff's position lie in the areas of steam production plant lives and in the recovery period for the near-term planned retirements at Avon Park, Higgins and Turner. While the Company has proposed an implementation date of January 1, 1995 for the recovery schedules, Staff is recommending an implementation date of January 1, 1994. Further, at the time the depreciation study was filed, FPC believed that both Avon Park and Turner would never return to service and that Higgins was the only plant possible for repowering. As a result of the Integrated Resource Planning process, it is now believed that both Turner and Higgins will be repowered.

 Another difference is found in the investment and reserve positions used by Staff. While the Company's study was based on estimated 1993 and 1994 data, Staff used actual 1993 investment and reserve balances brought forward with FPC's projected 1994 activity.

 An additional difference noted between the positions of the Company and the Staff is associated with the recovery of the net investments retired as a result of the no-name winter storm of March 1993. These unrecovered costs of $553,152 are currently reflected in each affected account's reserve and are being recovered over the associated account's remaining life. In the Company's last rate case in Docket No. 910890-EI, it was determined that the storm damage reserve should be used for losses incurred, not otherwise covered by insurance, for any destructive acts of nature. O & M costs incurred from the no-name storm have already been charged to the storm damage reserve. It stands to reason therefore that the unrecovered capital costs should also be recovered from this reserve. FPC is in agreement with this recommended treatment. Reserves shown on Attachment E, page 23-27, reflect this action.

 Amortizations

 Certain general support asset account investments are being amortized under Rule 25-6.0142, Florida Administrative Code. The embedded investments for each of these equipment types are shown on Attachment E, page 26, as well as the associated amortization period as set forth in the rule and the resultant expense.

 Depreciation Rates

A. Production Plant

 The approach to projecting interim retirement patterns is the essential difference between Company and Staff for the depreciation rates for production plant.

 In developing its proposed lives for production plant, FPC stratified the investment into groups of assets having similar life characteristics. Service lives for each strata were then determined using the same methodology employed by Staff in the last study review. The average age of each stratified category was computed and, assuming a square-wave, remaining lives were determined for each strata. The various strata lives were then composited to a proposed remaining life by account for each production plant.

 The basic difference between the remaining lives proposed by FPC and those recommended by Staff lies in the projected interim retirement assumption. FPC's approach assumes very low interim retirement rates, as evidenced by the choice of a square-wave pattern. These assets, however, will not truly live as a square-wave (no retirements until date of final retirement). Staff's approach is to use the various strata whole lives as the Company proposed and then develop a retirement pattern by smoothing the curve resulting from the various strata of each account.

 For the Structures and Miscellaneous Equipment accounts for each plant, FPC's net salvage proposals vary among the plants ranging from 0% to negative 10%. In the belief that these investments should experience similar costs relating to interim retirements, Staff is recommending a negative 5% net salvage for each account for each plant.

 The Avon Park, Higgins and Turner plants are in a state of "Extended Cold Shutdown" at this time. The current plans call for the dismantlement of Avon Park by year end 1995 and the repowering of Higgins and Turner by 2000 and 2001, respectively. Recovery schedules have therefore been recommended for the associated retiring net investments as addressed in Issue 3. Prior to the repowered Higgins and Turner plants becoming operational, FPC should submit a study addressing new depreciation rates based on expected lives for the repowered investments.

 While the Company proposes a negative 2% net salvage for the new peakers at Debary and Intercession City as well as for the University of Florida Combustion Turbine, Staff is recommending a negative 10%, based on the assumption that the interim retirements will result in the same type of net salvage as experienced by the other peaking plants.

 As in the last study review, current information still does not appear to warrant depreciation rates by account for both the peaking plants and the Bartow-Anclote pipeline. The Company proposal, and the Staff recommendation, are for rates by site or installation.

B. Transmission Plant

 Staff and the Company are in agreement regarding life, salvage and reserve factors on all but three accounts. There is disagreement on the salvage factor for Account 353.1, Station Equipment and on the life parameters for Account 353.2, Station Equipment-Energy Control Center and Account 357, Underground Conduit.

 The Company proposal for Account 353.1, Station Equipment, is to change the salvage factor from 10% to 20% based on an expectation that "30% of the plant retired will be reused." The average annual retirement rate for this account for the last five years has been less than one-half percent. This type of activity precludes any meaningful statistical analysis from being made and makes reliance on industry averages necessary. Recognizing the prospect of reuse salvage from such items as breakers, switches, relays, and lightning arresters and junk salvage for the remaining equipment in the account, a net salvage factor of 10% is recommended.

 The remaining life proposed by FPC for the Energy Control Center computer system is based on a 13 year average service life. This computer system was installed in 1991. It analyzes the load requirements and controls the power plants in the transmission grid. It is Staff's opinion that the proposed service life is somewhat long, particularly in view of the fast-paced technology in the computer field. With this in mind, an average remaining life of 8 years based on a 10 year average service life and the currently approved S6 curve shape is recommended as being more indicative of the life expectancy for this equipment.

 The Company's proposal for Account 357, Underground Conduit is a change in curve shape and a shortened average service life from 50 years to 45 years. This account has not experienced a plant addition since 1978 and has had no retirement activity since 1987. This level of activity does not support the Company's proposal for this account and makes reliance on industry averages necessary. Staff's recommended 22 year average remaining life is based on maintaining the current average service life and curve shape and is representative of current industry expectations.

C. Distribution Plant

 The only differences between the positions of Staff and FPC for this function are with the service life for Account 366, Underground Conduit and the net salvage factor for Account 365, Overhead Conductors and Devices and Account 369.2, Underground Services.

 The Company proposal for Underground Conduit is to maintain the current R3 curve shape with a decrease in average service life from 45 years to 42 years. According to the data submitted, there has only been approximately 4% of the investment retired since the account's inception in 1943. This retirement pattern precludes any meaningful statistical analysis and therefore makes reliance on industry averages necessary. Staff's recommended 36 year remaining life is based on maintaining the current 45 year average service life which is at the low end of current industry estimates for the plant.

 Retention of the current net salvage factors for Overhead Conductors and Devices and Underground Services is recommended. The retirement rates for both accounts have been very low, and the salvage history highly variable. It can not be assumed that recent removal history, associated with retirements which averaged much less than 1% annually, can be applied to the entire investment for these accounts. There is not sufficient indication to make any change from the currently approved net salvage. Therefore, Staff recommends maintaining the current negative 30% and negative 20% for Overhead Conductors and Devices and Underground Services, respectively.

 The Company proposal for Account 369.2, Underground Services, is a decrease in average service life from 40 years to 37 years. Over the last decade, retirements have averaged well below 1% annually. This low level of retirements precludes any meaningful analysis and makes reliance on industry averages necessary. Therefore, Staff recommends retaining the currently prescribed 40 year average service life and the R2.5 curve shape which produces the recommended 32 year average remaining life. This is in line with current industry expectations.

D. General Support Plant

 Staff accepts the Company's proposal for all of the accounts in this portion of plant with one exception, Account 397, Communication Equipment. Considering the technological advances being made in the telecommunications industry in addition to the recent activity of this account, Staff recommends a 15 year average service life for this account. FPC provided its December 31, 1993 inventory results to Staff. Staff then utilized this data to recalculate the average age of the account as of January 1, 1995. Using the S1 curve shape and the recalculated average age of 6.8 years produces the recommended average remaining life of 9.7 years. Staff agrees with the Company proposed net salvage of zero.

**ALTERNATE STAFF ANALYSIS:** The only difference between the Primary and Alternate recommendation is a result of the implementation date for the recovery schedules. Attachment F, page 29, reflects a January 1, 1995 implementation date for rates, recovery schedules, amortization schedules, and provision for dismantlement.

**ISSUE 6:** What should be the amortization period for FPC's new Customer Service Billing System?

**RECOMMENDATION:** The amortization period for the computer software should be 10 years. (LEE, REVELL)

**STAFF ANALYSIS:** While the amortization of intangible property is not normally addressed in depreciation studies, FPC has requested that the amortization period for its new Customer Service System be addressed in this recommendation. This software system will be installed during 1994 at a cost of about $30 million. A 10 year amortization period has been proposed by FPC as approximating the period of time the benefits of this system will be realized.

 This new software system is state-of-the-art and will include all customer billing, cash processing, complete on-line customer history, tracking of connections, disconnections and customer deposits. Further, the system is designed to decrease paperwork and increase employee productivity as a result of having all customer information immediately available on-line.

 As a point of interest, Staff contacted the Federal Energy Regulatory Commission (FERC) to ascertain the amortization periods they generally prescribe for software systems. The amortization periods vary from 5 to 10 years with some longer than 10 years depending upon the period of time the benefits of the system are expected to be realized.

 Staff finds FPC's proposed 10 year amortization period to be in the range of reasonableness and acceptable.

**ISSUE 7:** Should the current amortization of investment tax credits (ITCs) and the flowback of excess deferred income taxes be revised to reflect the approved depreciation rates and recovery schedules?

**RECOMMENDATION:** Yes. The current amortization of ITC's and the flowback of excess deferred income taxes should be revised to reflect the approved depreciation rates and recovery schedules. Also, the utility should be required to file detailed calculations of the revised ITC amortization and flowback of excess deferred taxes at the same time it files the surveillance report covering the period ending January 31, 1995. (HICKS)

**STAFF ANALYSIS:** In foregoing issues, Staff recommends revising FPC's depreciation rates and recovery schedules to become effective January 1, 1995. Revising a utility's depreciation rates usually results in a change in its rate of ITC amortization and a change in its flowback of excess deferred taxes.

 FPC is treated under Section 46(f)(2) of the Internal Revenue Code (IRC), which results in weighted cost ITCs in its capital structure and above-the-line ITC amortization in its income tax expense. Section 46(f)(6) of the IRC states that the amortization of ITCs should be determined by the period used in computing depreciation expense for purposes of reflecting regulated operating results of the utility. Rule 25-14.008(3)(b)(3), Florida Administrative Code (FAC), states that where an election was made under Section 46(f)(2) of the Code, reductions to cost of service are made based on ratable allocations of the credit in proportion to the regulated depreciation expense. Consequently, a change in depreciation rates usually results in a change in the amortization of ITCs.

 Regarding the flowback of excess deferred taxes, Section 203(e) of the Tax Reform Act of 1986 (TRA) prohibits rapid write-back of excess protected (depreciation related) deferred taxes. Also, Rule 25-14.013, FAC, prohibits (without good cause shown) excess deferred income taxes from being reversed any faster than allowed under either the average rate assumption method of Section 203(e) of the TRA or Revenue Procedure 88-12, whichever is applicable. Consequently, the flowback of excess deferred taxes should be altered to comply with the TRA and Rule 25-14.013, FAC.

 FPC should be required to file a report with detailed calculations of the adjusting entries, revised ITC amortization and revised flowback of excess deferred taxes at the same time it files the Earnings Surveillance Report covering the period ending January 31, 1995.

**ISSUE 8:** Should this docket be closed?

**RECOMMENDATION:** Yes. If no substantially affected person timely files a protest to the Commission's notice of proposed agency action, this docket should be closed. (MEEKS)

**STAFF ANALYSIS:** If no substantially affected person files a timely request for a Section 120.57, Florida Statutes, hearing within twenty-one days, no further action will be required and this docket should be closed.

FLORIDA POWER CORPORATION

1993 DEPRECIATION STUDY

PROPOSED RECOVERY SCHEDULES

PRIMARY RECOMMENDATION

 1‑1‑94 1‑1‑94 NET TO BE PERIOD OF 1994 1995 1996 1997 1998 1999 2000

 INVESTMENT RESERVE RECOVERED RECOVERY EXPENSE EXPENSE EXPENSE EXPENSE EXPENSE EXPENSE EXPENSE

 ($) ($) ($) (Yrs.) ($) ($) ($) ($) ($) ($) ($)

Steam Production

 Avon Park 7,879,766 6,440,502 1,439,264 2 Yr. 719,632 719,632 0 0 0 0 0

Higgins Retirements 13,348,710 9,199,990 4,148,720 5.5 Yr. 754,313 754,313 754,313 754,313 754,313 377,155 0

Turner Retirements 14,321,917 8,629,184 5,692,733 6.5 Yr. 875,805 875,805 875,805 875,805 875,805 875,805 437,903

 TOTAL 35,550,393 24,269,676 11,280,717 2,349,750 2,349,750 1,630,118 1,630,118 1,630,118 1,252,960 437,903

 FLORIDA POWER CORP.

 1993 DEPRECIATION STUDY

 AMORTIZATION OF EXTENDED COLD SHUTDOWN CARRYING CHARGES

 1/1/95

 Unamortized Current Company Proposed Change In Staff Recommended Change In

 Costs Amortization Rem. LifeAmortization Expense Rem. LifeAmortization Expense

 ($) ($) (Yrs.) ($) ($) (Yrs.) ($) ($)

 Avon Park 711,891 24,204 10.6 67,160 42,956 9.5 74,936 50,732

 Port St. Joe 291,091 7,428 8.6 33,848 26,420 8.5 34,246 26,818

 Rio Pinar 221,040 7,344 7.0 31,577 24,233 8.5 26,005 18,661

 Turner 2,387,768 99,888 15.3 156,063 56,175 12.6 189,505 89,617

 Higgins 1,415,311 51,540 9.7 145,908 94,368 8.5 166,507 114,967

 Bartow 2,514,022 91,524 11.2 224,466 132,942 12.6 199,526 108,002

 TOTALS 7,541,123 281,928 659,022 377,094 690,725 408,797

FLORIDA POWER CORPORATION

1993 DEPRECIATION STUDY

PROPOSED RECOVERY SCHEDULES

ALTERNATIVE RECOMMENDATION

 1‑1‑95 1‑1‑95 NET TO BE PERIOD OF 1995 1996 1997 1998 1999 2000

 INVESTMENT RESERVE RECOVERED RECOVERY EXPENSE EXPENSE EXPENSE EXPENSE EXPENSE EXPENSE

 ($) ($) ($) (Yrs.) ($) ($) ($) ($) ($) ($)

Steam Production

 Avon Park 7,879,766 6,440,502 1,439,264 1 Yr. 1,439,264 0 0 0 0 0

Higgins Retirements 13,348,710 9,199,990 4,148,720 4.5 Yr. 921,938 921,938 921,938 921,938 460,968 0

Turner Retirements 14,321,917 8,629,184 5,692,733 5.5 Yr. 1,035,042 1,035,042 1,035,042 1,035,042 1,035,042 517,523

 TOTAL 35,550,393 24,269,676 11,280,717 3,396,244 1,956,980 1,956,980 1,956,980 1,496,010 517,523

FLORIDA POWER CORP.

1993 DEPRECIATION STUDY

COMPARISON OF RATES AND COMPONENTS

 ACCOUNT CURRENT COMPANY PROPOSAL STAFF RECOMMENDATION

 AVERAGE REMAINING AVERAGE REMAINING AVERAGE REMAINING

 REMAINING NET LIFE REMAINING NET LIFE REMAINING NET LIFE

 LIFE SALVAGE RESERVE RATE LIFE SALVAGE RESERVE RATE LIFE SALVAGE RESERVE RATE

STEAM PRODUCTION PLANT

 Crystal River 1 & 2

 311 Structures and Improvements 17.4 (8.0) 45.95 3.6 17.6 (5.0) 52.78 3.0 15.7 (5.0) 50.75 3.5

 312 Boiler Plant Equip. 12.5 (8.0) 49.28 4.7 12.8 (25.0) 56.14 5.4 11.8 (25.0) 54.08 6.0

 314 Turbogenerator Units 11.8 (8.0) 52.01 4.7 18.1 (25.0) 22.72 5.7 11.3 (25.0) 22.38 9.1

 315 Accessory Electric Equip. 14.6 (8.0) 49.03 4.0 15.9 (10.0) 53.31 3.6 13.3 (10.0) 51.62 4.4

 316 Misc. Power Plant Equip. 8.3 (8.0) 51.36 6.8 10.9 (10.0) 43.42 6.1 10.2 (5.0) 41.26 6.2

 Crystal River 4 & 5

 311 Structures and Improvements 36.0 (8.0) 13.86 2.6 32.0 0.0 24.47 2.4 34.0 (5.0) 24.16 2.4

 312 Boiler Plant Equip. 19.2 (8.0) 26.33 4.3 21.0 (10.0) 43.27 3.2 18.1 (10.0) 42.22 3.7

 314 Turbogenerator Units 18.0 (8.0) 25.72 4.6 15.7 (10.0) 37.64 4.6 17.6 (10.0) 37.05 4.1

 315 Accessory Electric Equip. 22.0 (8.0) 25.60 3.7 20.0 (10.0) 38.78 3.6 21.0 (10.0) 38.60 3.4

 316 Misc. Power Plant Equip. 9.8 (8.0) 31.98 7.8 10.9 0.0 57.09 3.9 12.4 (5.0) 54.64 4.1

 Anclote Steam Plant

 311 Structures and Improvements 29.0 (12.0) 29.73 2.8 26.0 0.0 39.80 2.3 25.0 (5.0) 39.12 2.6

 312 Boiler Plant Equip. 16.0 (12.0) 38.62 4.6 13.1 (20.0) 50.94 5.3 15.4 (20.0) 49.47 4.6

 314 Turbogenerator Units 13.7 (12.0) 45.96 4.8 13.6 (10.0) 57.49 3.9 13.3 (10.0) 56.32 4.0

 315 Accessory Electric Equip. 18.3 (12.0) 39.22 4.0 14.2 (10.0) 50.65 4.2 17.1 (10.0) 44.87 3.8

 316 Misc. Power Plant Equip. 10.6 (12.0) 50.82 5.8 7.9 (10.0) 57.87 6.6 9.6 (5.0) 54.97 5.2

 Bartow Steam Plant

 311 Structures and Improvements 16.4 (20.0) 59.23 3.7 10.8 (5.0) 64.48 3.8 12.9 (5.0) 68.03 2.9

 312 Boiler Plant Equip. 12.7 (20.0) 55.36 5.1 12.9 (20.0) 43.00 6.0 10.9 (20.0) 34.62 7.8

 314 Turbogenerator Units 11.3 (20.0) 57.09 5.6 6.9 (20.0) 55.09 9.4 9.9 (20.0) 58.81 6.2

 315 Accessory Electric Equip. 13.4 (20.0) 59.70 4.5 13.2 (20.0) 38.49 6.2 11.4 (20.0) 39.46 7.1

 316 Misc. Power Plant Equip. 6.8 (20.0) 62.03 8.5 6.2 (10.0) 53.36 9.1 7.6 (5.0) 57.59 6.2

FLORIDA POWER CORP.

1993 DEPRECIATION STUDY

COMPARISON OF RATES AND COMPONENTS

 ACCOUNT CURRENT COMPANY PROPOSAL STAFF RECOMMENDATION

 AVERAGE REMAINING AVERAGE REMAINING AVERAGE REMAINING

 REMAINING NET LIFE REMAINING NET LIFE REMAINING NET LIFE

 LIFE SALVAGE RESERVE RATE LIFE SALVAGE RESERVE RATE LIFE SALVAGE RESERVE RATE

 Suwannee River Steam Plant

 311 Structures and Improvements 10.2 (12.0) 82.42 2.9 5.4 (5.0) 88.29 3.1 11.1 (5.0) 84.02 1.9

 312 Boiler Plant Equip. 9.1 (12.0) 76.51 3.9 3.7 (15.0) 54.25 16.4 9.7 (15.0) 45.22 7.2

 314 Turbogenerator Units 8.4 (12.0) 75.88 4.3 4.2 (15.0) 71.71 10.3 8.9 (15.0) 68.86 5.2

 315 Accessory Electric Equip. 9.4 (12.0) 75.34 3.9 5.3 (15.0) 71.18 8.3 10.1 (15.0) 76.10 3.9

 316 Misc. Power Plant Equip. 10.0 (12.0) 46.00 6.6 4.3 0.0 47.02 12.3 10.6 (5.0) 45.67 5.6

 Bartow‑Anclote Pipeline

 All Accounts ‑ Total 25.0 (5.0) 35.00 2.8 29.0 0.0 44.97 1.9 23.0 (5.0) 44.67 2.6

NUCLEAR PRODUCTION PLANT

 Crystal River 3

 321 Structure and Improvements 23.0 (18.0) 35.29 3.6 21.0 (10.0) 47.67 3.0 19.9 (10.0) 47.54 3.1

 322 Reactor Plant Equip. 17.8 (18.0) 40.72 4.3 14.9 (20.0) 45.36 5.0 16.3 (20.0) 45.50 4.6

 323 Turbogenator Units 13.6 (18.0) 45.33 5.3 14.3 (20.0) 50.85 4.8 12.8 (20.0) 50.71 5.4

 324 Accessory Electric Equip. 21.0 (18.0) 24.98 4.4 18.3 (20.0) 33.25 4.7 17.4 (20.0) 33.38 5.0

 325 Miscellaneous Equip. 10.7 (18.0) 37.03 7.6 10.9 (10.0) 75.55 3.2 11.5 (5.0) 65.40 3.4

PRODUCTION PLANT ‑ PEAKERS

 Bayboro Peaking Plant 12.3 (2.0) 54.03 3.9 10.2 (10.0) 67.74 4.1 9.5 (10.0) 65.28 4.7

 Higgins Peaking Plant 10.4 (2.0) 67.68 3.3 9.7 (10.0) 54.91 5.7 8.5 (10.0) 53.11 6.7

 Avon Park Peaking Plant 9.5 (2.0) 70.65 3.3 10.6 (10.0) 58.96 4.8 9.5 (10.0) 59.52 5.3

 DeBary Peaking Plant 14.5 (2.0) 46.90 3.8 15.7 (10.0) 52.31 3.7 17.0 (10.0) 48.66 3.6

 DeBary Peaking Plant ‑ New 30.0 (2.0) 0.00 3.4 \* 34.0 (2.0) 7.49 2.8 30.0 (10.0) 7.52 3.4

 Bartow Peaking Plant 17.4 (2.0) 51.54 2.9 11.2 (10.0) 47.46 5.6 12.6 (10.0) 45.25 5.1

 Intercession City Peaking Plant 13.5 (2.0) 56.10 3.4 16.8 (10.0) 59.83 3.0 16.1 (10.0) 57.30 3.3

 Intercession City Peaking Plant‑New 30.0 (2.0) 0.00 3.4 \* 35.0 (2.0) 4.34 2.8 30.0 (10.0) 4.16 3.5

 Port St. Joe Peaking Plant 11.5 (2.0) 65.20 3.2 8.6 (10.0) 49.21 7.1 8.5 (10.0) 48.52 7.2

 Rio Pinar Peaking Plant 11.4 (2.0) 65.52 3.2 7.0 (10.0) 47.19 9.0 8.5 (10.0) 47.73 7.3

 Suwanee River Peaking Plant 19.3 (2.0) 34.45 3.5 19.7 (10.0) 46.84 3.2 18.5 (10.0) 45.15 3.5

 Univ. of Fla.‑Combustion Turbine 20.0 0.0 0.00 5.0 \* 19.0 (2.0) 5.54 5.1 20.0 (10.0) 3.69 5.3

 Turner Peaking Plant 13.3 (2.0) 56.78 3.4 15.3 (10.0) 54.29 3.6 12.6 (10.0) 54.08 4.4

 \*Denotes Whole Life Rate