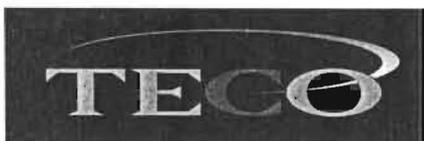


ORIGINAL



TAMPA ELECTRIC

January 11, 2000

Ms. Patricia S. Lee  
Utility Systems/Communications Engineer Supervisor  
Division of Auditing and Financial Analysis  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, Florida 32399-0872

Re: Docket No. 990529-EI  
Tampa Electric Company's Depreciation Study

Dear Ms. Lee:

Enclosed are three (3) copies of Tampa Electric Company's comments to your request, dated January 5, 2000, for written responses to Staff's Audit Report in the above referenced docket.

Please let me know if you have any questions with respect to this response.

Sincerely,

Angela L. Llewellyn  
Administrator - Regulatory Coordination  
Tampa Electric Company

- AFA
- APP
- CAF
- CMU
- CTR
- EAG
- LEG
- MAS
- OPC
- RRR
- SEC
- WAW
- OTH

Enclosures

cc: Blanca S. Bayo - Division of Records and Reporting  
J. D. Beasley

TAMPA ELECTRIC COMPANY  
P.O. BOX 111  
TAMPA, FL 33601-0111  
HILLSBOROUGH COUNTY 223-0800  
OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800  
HTTP://WWW.TECOENERGY.COM  
AN EQUAL OPPORTUNITY COMPANY

DOCUMENT NUMBER-DATE

00466 JAN 11 8

FPSC-RECORDS/REPORTING

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 990529-EI  
DEPRECIATION STUDY – STAFF REPORT  
JANUARY 11, 2000**

**INVESTMENT/RESERVE TRANSFERS**

In response to staff's questions regarding investment transfers without an associated reserve amount, the company replied that there was no reserve calculated for the transfer of plant because it is considered to be immaterial. What is the company's policy regarding this practice? What criteria is used to determine if and when a reserve adjustment is warranted?

The Federal Code of Regulations, Subchapter C, Part 101, Electric Plant Instructions, Section 12, Transfers of Property, provides that when property is transferred from one plant account to another, there is also a transfer of the accumulated reserve. There is no materiality threshold mentioned. Also, from conversations with the Federal Energy Regulatory Commission (FERC) staff, it is our understanding that no materiality threshold regarding such transfers should be allowed.

It is staff's opinion that the company's practice of not transferring the reserve associated with transferred investment is in conflict with standard depreciation principles and practices, as well as FERC's Uniform System of Accounts (USOA). As long as the investment dollars are in a given account, those dollars are accruing depreciation, and that accumulated amount should be transferred with the associated plant amount. The practice TECO appears to be following essentially assumes that the investment transferred is new plant without any reserve. This will overstate the reserve for the account from which the transfer originated and will understate the reserve for the receiving account.

**Tampa Electric's Comments:**

**The company agrees to transfer the accumulated reserve when property is transferred from on plant account to another.**

**RESERVE ALLOCATIONS**

This study affords staff and the company the opportunity to review the reserve status of all production sites and all transmission, distribution, and general plant accounts to determine the need for corrective reserve measures. Due to the effects reserve transfers may have on jurisdictional separations, purchase power agreements, or other lease arrangements, staff's approach to reserve allocations is that, ideally they be made between accounts of a given unit or function.

DOCUMENT NUMBER-DATE

00466 JAN 11 8

FPSC-RECORDS/REPORTING

As part of TECO's 1995 depreciation study, reserve allocations were approved as a result of the company's further stratification of the Big Bend and Gannon sites and the related Big Bend combustion turbines to an account level within each unit. For the remaining plant sites, investment and reserve activity continued to be maintained by unit at each plant. With the current study, the company has introduced another refinement by stratifying each unit of the remaining production plants to an account level. With the development of remaining life rates at the account level, TECO has proposed a reallocation of the total reserve for each unit to an account level. The company has also proposed additional reserve allocations within the Big Bend and Gannon sites.

As part of staff's initial review, the company was requested to provide an example of its theoretical reserve calculation used in determining its proposed reserve allocations. In its response, TECO explained how the depreciation reserve ratio was calculated for each life category. It further stated that the "theoretical reserve ratio was entered for each investment year on the life category worksheet and multiplied by that year's investment to provide the calculated depreciation reserve." However, no example of this calculation was provided. Staff again requests the company provide an example of the theoretical reserve calculation used to determine the proposed reserve adjustments. We suggest the example illustrate the development of the proposed reserve adjustments for Polk Unit 1 allocating the Station reserve to an account level. Additionally, staff requests the company provide the development of its proposed reserve adjustment of negative \$1,083,251 for Big Bend Common, Account 311400, as shown on page 5 of the study and also the calculation of the theoretical reserve of \$14,403,730 for the same account as shown on page 23 of the study. Staff's approach to reserve allocations for the Big Bend and Gannon sites will be to address significant imbalances only.

**Tampa Electric's Comments:**

**The company proposed reserve transfers from Big Bend Station to Polk Power Station Unit #1 an necessary in order to bring the actual reserve up to equal the theoretical reserve. This is consistent with the method used by consistent with the method used by staff in previous studies, since Production Plant was over recovered in total. Our proposed transfer was in response to the precedent set in prior depreciation orders.**

**In response to staff's request to "provide the development of its proposed reserve adjustment of negative \$1,083,251 for Big Bend Common, Account 311400, as shown on page 5 of the study"; the company offers the following explanation:**

**The reserve adjustments were made to smooth-out the percentage of actual reserve vs. theoretical reserve for Big Bend Station, and to identify Reserve amounts that could be transferred to other accounts that had reserve deficiencies. There was not a formal schedule or document that**

displays the scenario. The company made the transfers, as deemed necessary based upon our analysis of the reserve.

In response to staff's request to "provide the calculation of the theoretical reserve of \$14,403,730 for the same account as shown on page 23 of the study, and the proposed reserve adjustments for Polk Unit 1 allocating the Station reserve to an account level"; the company offers the following explanation:

The company has enclosed the necessary work papers and copies of the necessary curve types on diskettes. The diskettes contain files for each curve type used and also displays the data for all vintages for a particular vintage group. For example, using the Big Bend Common – Account 311 – 65 year curve, the 1970 vintage group is represented by the 65 year life group. The corresponding average service life, remaining life and theoretical reserve ratio are highlighted. The next vintage group, 1971, is represented by the 64 year life group, etc. The corresponding values used on the detailed spreadsheets are highlighted for each curve type and for each vintage group. This file provides staff with a clear picture of the company's use of truncation in all calculations, and further provides staff with the methods used to calculate each field. The company believes that with this information staff can follow all calculations made by the company.

For the Big Bend Common – Account 311400, please use the following curves:

Big Bend Common – 311 – 65 Year Life  
Big Bend Common 35 Year Life  
Big Bend Common 20 Year Life

For Polk Power Station Unit #1, please use the following curve types:

Polk #1 – Account 341 – 50 Year Life  
Polk #1 – Account 341 – 40 Year Life  
Polk #1 – Account 342 – 40 Year Life  
Polk #1 – Account 343 – 40 Year Life  
Polk #1 – Account 345 – 50 Year Life  
Polk #1 – Account 345 – 40 Year Life  
Polk #1 – Account 346 – 50 Year Life  
Polk #1 – Account 346 – 40 Year Life  
Polk #1 20 Year Life and Polk #1 5 Year Life

Please note that the 20 year and 5 year life files are the same for all FERC accounts. Staff will be able to follow the calculations as prepared by the company for all accounts in question.

**The company maintains that the reserve transfers made are proper, and that sales contracts are not affected by these adjustments. The company believes that the allocation of reserves within production plant is prudent. The actual reserve for Polk Power Station Unit #1, as of 12/31/1998, was allocated based on the theoretical reserve calculation for each FERC account. The reserve transfers were then made to bring the actual reserve in line with the theoretical reserve for each FERC account.**

## **PLANT UNDER CONSTRUCTION**

The company currently has two major additions under construction - Big Bend Unit No. 1 & 2 Scrubber and Polk Unit No. 2. The Big Bend Unit No. 1 & 2 Scrubber has a planned in-service date of January 1, 2000 with an estimated retirement date of 2023; Polk Unit No. 2 is planned for service year-end 2000 with an estimated retirement date of 2028. Additionally, TECO plans to place additional combustion turbines within the next few years, although the exact type of generation and cost estimates are not available. The company has proposed depreciation rates to be used when the respective equipment is placed into service with detailed life analyses to be performed upon completion of the property records.

Because the related equipment is not in-service at this time, staff is proposing the use of whole life depreciation rates.

Big Bend Unit 1 & 2 Scrubber: TECO's life and salvage proposals are based on stratification similar to that used for the Big Bend Unit No. 4 FGD System with an interim retirement rate similar to that used for Account 312, Boiler Plant Equipment, since the majority of investment is anticipated to be recorded in this account. Staff's proposals assume a mix of investment similar to that for the Big Bend Unit No. 4 FGD System and a corresponding interim rate relating to that mix. A 22-year service life and a negative 12% net salvage results.

Polk Unit No. 2: TECO's life proposals are based on stratification similar to that used for Polk Unit No. 1. An interim retirement rate and net salvage value similar to that used for Polk Unit No. 1, Turbogenerator Units, Account 343, was assumed since the majority of investment is expected to be recorded in this account. However, staff notes that assets included in the 20-year life category for Unit No. 1 are considered in a 25-year life category for Unit No. 2 without any explanation. Staff would like to understand how this is consistent with the life analysis for Polk Unit No. 1. Is it anticipated that Polk Unit No. 2 will be operating under similar corrosive conditions as Polk Unit No. 1?

### **Tampa Electric's Comments:**

**Pertaining to staff's point about the difference between the 20 year and 25 year life categories for Polk Unit 2, staff is correct in its concern. The company mistakenly used the 25 year life category. The 20 year life category should have been used, and the company has recalculated the**

proposed depreciation rate based on the results. The remaining life of 22 years is the result of the changes indicated above. The future net salvage rate is -11% as previously presented. This would result in a remaining life rate of 5.0%.

Polk Unit No. 2 is to be a natural gas-fired unit and will not be subject to the same corrosive conditions as Polk Unit No. 1. The corrosive areas at Unit No. 1 are the result of the coal gasification process and its associated systems. Unit No. 2 will not have any similar equipment. The lives assigned to the assets for Unit No. 2 are consistent with similar assets at Unit No. 1, but these lives are based on the expected life of the assets and are not affected by the corrosive conditions at the plant site.

An area of concern regarding TECO's proposals relates to the total projected life span for Polk Unit No. 2. The life span (estimated date of retirement - in-service date) projected for Polk Unit No. 1 is 40 years; however, the life span for Polk Unit No. 2 is projected to be only 28 years. Please provide a discussion detailing the support for the company's assumption of a much shorter life span for Polk Unit No. 2. Pending receipt of this information, staff will not make a life proposal at this time. However, staff's approach will be to assume a mix of investment similar to that for Polk Unit No. 1 and a corresponding interim rate relating to that mix. The same approach used in estimating net salvage results in a negative 11% net salvage value.

**Tampa Electric's Comments:**

The company prepared the remaining life estimate for Polk Unit No. 2 in a consistent manner as for Unit No. 1. The assets were broken down into 40 year, 20 year and 5 year life categories consistent with Polk Unit No. 1. The remaining life is now at 22 years based on the changes noted above. This would result in a remaining life rate of 5.0% including the -11% future net salvage.

New Combustion Turbines: TECO proposes that any new combustion turbines placed in service during the next 4-year period use the same life and salvage values as proposed for Polk Unit No. 2. This assumes that any new combustion turbines will be subject to similar corrosive operating conditions as Polk Unit No. 1 which may or may not be the case. On the other hand, lives estimated for new combined cycle units in the state range from 23 years to 30 years. Until a more detailed life analysis is performed, staff finds the company proposal reasonable.

**Tampa Electric's Comments:**

The company's current plans call for additional combined cycle units at the Polk Power Station to be similar to the Polk Unit No. 2. Therefore, the depreciation rate for each unit should be similar to that of Unit No. 2. As

**explained above, none of these units will operate under the same corrosive conditions as Unit No. 1.**

## **PRODUCTION PLANT**

Staff remains concerned that the company projects no major retirements for its production plants, either in the proposed retirement patterns for the various strata at the production plants, or in the near-term 1999-2002 period. This is rather unusual. We recognize that the various production plants can have significant differences, but are surprised at the apparent interim durability of these plants.

The company has stated that the replacement of coal classifiers and the addition of the Big Bend Unit 1 & 2 Scrubber are being installed in connection with the Clean Air Act. The January 1, 1999 investment subject to retirement as a result of this installation is \$4,184,906 with an associated reserve of \$1,763,045. It is staff's understanding from information TECO submitted in the Environmental Cost Recovery Clause docket that the replacement of the coal classifiers occurred at Big Bend Unit No. 1 and Unit No. 2 and at Gannon Unit No. 5 and Unit No. 6 in December, 1998 and May, 1998 for the Big Bend units, and December, 1997 and June, 1999 for the Gannon units. The associated \$2,421,861 unrecovered investment relates to plant no longer in service. For this reason, staff believes a recovery schedule designed to recover the investment as fast as economically practicable for the company should be addressed. Staff would appreciate your input into the recovery period for this net investment.

### **Tampa Electric's Comments:**

**The staff report recommends that a recovery schedule be designed to recover \$2,421,861 of net investment in retired classifiers and Big Bend Unit 1&2 assets in connection with the Clean Air Act as fast as economically practicable for the company. Since the company's filing, additional amounts have been taken into account which brings the net investment for the retired assets to \$3,360,744. The reserve deficiency created by these retirements has not been contemplated in the company's currently filed depreciation study.**

**In the recent ECRC recovery proceedings, the company agreed to a stipulation that depreciation related to retired investment would be offset against the ECRC recovery of depreciation related to new investment until a new depreciation study properly reflects the reserve deficiency created by the retired investment. This method is acceptable because the company would no longer be incurring an expense for the retired investment during the interim period, but still would be receiving recovery through base rates. The ECRC will reflect this difference until the next depreciation study.**

The essence of the stipulation is that the company should consider changes in costs related to all assets for projects required under environmental regulations, whether the costs are for new investments or for old investments that are being recovered through base rates. The stipulation implies that if Tampa Electric no longer incurs depreciation on an asset retired due to environmental laws, but still receives associated base rate revenue, then this difference should be considered in the ECRC. Therefore, it follows that if Tampa Electric must incur additional depreciation on an asset retired due to environmental laws that is more than the associated base rate revenue, then this difference should be considered in the ECRC.

In the staff report, it is recommended that Tampa Electric incur an annual expense that is greater than the related annual recovery from base rates. Tampa Electric believes that if the retired investment is placed on a schedule that causes the annual expense to exceed the amount being annually recovered through base rates, then the difference should be recovered through the ECRC. For example, if the \$3,393,708 million of retired assets is amortized over four years so that full recovery of its net book value is achieved by the next depreciation study, the annual expense (\$848,427) would exceed the amount being annually recovered through base rates (approx. \$158,000) and the difference should be recovered through the ECRC.

A recovery schedule addressing the net investment associated with the replaced coal classifiers requires removal of the investment and reserve remaining in Account 312 from each affected unit. For this reason, please provide the January 1, 1999 investment and reserve associated with the retired coal classifiers at Big Bend Unit No. 1 and Unit No. 2 as well as for Gannon Unit No. 5 and Unit No. 6.

**Tampa Electric's Comments:**

	<u>Investment</u>	<u>Reserve</u>
Big Bend 1 Classifiers	89,182.00	78,051.24
Big Bend 2 Classifiers	211,890.00	120,869.53
Gannon 5 Classifiers	36,414.33	26,773.06
Gannon 6 Classifiers	76,785.70	53,463.83
Big Bend 1 & 2 (Scrubber)	5,401,257.45	2,142,664.08

**Steam Production** - Although staff understands that the coal related assets at the Big Bend and Gannon Stations are now being considered for retirement and several of the units are now planned for repowering, staff proposals discussed below relate to the company's depreciation study as filed. These proposals are subject to change pending receipt of additional information regarding the current planning.

Attachment A, pages 12 - 35, shows a development of life parameters for the steam production plants by account by site using the underlying elements of the company's

proposal. For the full life categories, staff utilized the interim retirement pattern the company forecasted for each unit. For the remaining life categories, staff has utilized the same curve shape with applicable truncation as the company.

Gannon Oil Back-Out Project has estimated dates of final retirement in accord with those for Gannon Station. The related assets are the conversion assets associated with converting Gannon Unit Nos. 1 - 4 from oil to coal. These investments were recovered through the oil back-out (OBO) tariff which provided, in addition to normal depreciation, accelerated recovery as a result of the fuel savings. This current study represents a further refinement in stratification as the company has developed depreciation rates by account by unit rather than a composite rate for all accounts for each unit. The reserve has been adjusted to remove the accelerated recovery authorized through the OBO tariff. The accelerated recovery will result in the investments being recovered by first quarter 2003 rather than over the remaining life of the assets of 15.5 years.

Hookers Point has an estimated date of final retirement of year-end 2003. The company points out in the study narrative that the retirement date is consistent with its ten year site plant but does not represent firm plans. It appears to staff that firm planning should exist for a retirement anticipated in the company's 5-year horizon. In the case where such planning supports the retirement date, staff agrees that a recovery schedule designed to amortize the associated remaining net unrecovered investment over a period matching the remaining years of service would be the most appropriate action. However, without such firm plans, staff proposed lives are those shown on Attachment A. Where the average age of the given life category exceeded the estimated life, the related investments were rolled into the next longer life category. When retirement plans become firm, the company should review the recovery status of these assets and petition the Commission for any revisions necessary to assure recovery by the time of retirement.

The company has refined its development of net salvage for its production sites by calculating an interim salvage rate for each account and applying that rate to the future retirements estimated over the remaining life of the unit. The proposed net salvage values for each account for each unit of each steam site appear reasonable and are acceptable.

**Miscellaneous Production** - Attachment A, page 36, shows a development of life parameters for the Structures and Improvements using the underlying elements of the company's proposal. For the full life category, staff utilized the interim retirement pattern the company forecasted for each unit. For the remaining life categories, staff has utilized the same curve shape as the company. The proposed negative 4% net salvage appears reasonable and is acceptable to staff.

**Other Production** - The company proposals reflect a refinement of its stratification to the account level for each unit. Staff asked in the initial review for the curve shapes the company used in developing its proposed remaining lives for each of the life subcategories for the Other Production assets. The response discussed current

planning for additional peaking plants during the 1999-2002 period as well as the current planning for Polk Unit 2 but did not address the curve shapes used in the life analysis. Lacking any other information, staff used a similar approach as used for steam production plants.

**Tampa Electric's Comments:**

**Big Bend Combustion Turbine No. 1**

40 year life categories – interim retirement rates

25 year life categories – S4 25 Iowa Curve

20 year life categories – S3 20 Iowa Curve

**Big Bend Combustion Turbine No. 2&3**

40 year life categories – interim retirement rates

25 year life categories – S4 25 Iowa Curve

20 year life categories – S3 20 Iowa Curve

**Gannon Combustion Turbine No. 1**

40 year life categories – interim retirement rates

25 year life categories – S4 25 Iowa Curve

20 year life categories – S3 20 Iowa Curve

**Phillips Station No. 1**

30 year life categories – interim retirement rates

25 year life categories – S4 25 Iowa Curve

20 year life categories – S3 20 Iowa Curve

**Polk Power Station No. 1**

50 year life categories – interim retirement rates

40 year life categories – interim retirement rates

20 year life categories – S3 20 Iowa Curve

5 year life categories – SQ 5 Iowa Curve

Big Bend and Gannon Combustion Turbines: Attachment A, pages 37 - 39, shows a development of life parameters for each account using the underlying elements of the company's proposal. For the full life categories, staff utilized the interim retirement pattern the company forecasted for each account. For the remaining life categories, staff has utilized the same curve shape with applicable truncation as used for the steam plant sites. However, we have noted that some of the 25 and 20-year life categories have ages exceeding 25 and 20 years. In cases such as these, a longer lived category should be considered as the company did for the steam production plants unless there are firm plans for near-term retirement. Staff's life proposals reflect the reassignment of these assets to the next longer life category. The proposed net salvage proposals appear reasonable and are therefore acceptable to staff.

Phillips Station: Attachment A, page 40, shows a development of life parameters for each account using the underlying elements of the company's proposal. For the full life

categories, staff utilized the interim retirement pattern the company forecasted for each unit. For the remaining life categories, staff has utilized the same curve shape with applicable truncation as the company. The proposed net salvage proposals appear reasonable and are therefore acceptable to staff.

Polk Power Station: At the time of TECO's last depreciation review, the company expected Polk Unit No. 1 to experience similar life characteristics as its other major generating units. This unit went into service in September, 1996, and has an estimated retirement date of year-end 2036.

According to the current study narrative, Polk Unit No. 1 is now considered different from TECO's other units. The company asserts that the nature of this plant with its chemical processes requires a life analysis that is sensitive to the more corrosive atmosphere under which this type of unit will be operating. The life analysis presented in the current study represents the company's first analysis of this unit at an asset level as the life analysis presented in the previous study was at a site level. As with other units, TECO stratified the assets at Polk Unit 1 into various categories expected to live in different patterns. Those assets expected to be common facilities as other units are placed in-service at the Polk site were assigned a full life span of 50 years. A 5-year life was assigned the combustion section of the combustion turbine and other equipment that is most exposed to a corrosive environment. A 40-year life span was assigned to the power block structures and other long life assets. TECO believes that this plant should have a full life of 40 years rather than 50 years assigned to its other major units.

Attachment A, page 41, shows staff's preliminary development of life parameters for each account using the underlying elements of the company's proposal. For the full life categories, staff utilized the interim retirement pattern the company forecasted for each account. For the remaining life categories, staff has utilized the same curve shape with applicable truncation as used for the steam plant sites.

Staff understands that the company's initial stratification for this unit may need some revision as experience develops; the estimated service lives may likewise need to be revised with time. At this time however, staff needs a better understanding of why the company expects this type of plant to experience a life span of 40 years rather than the 50 years expected for TECO's other major units. Additionally, any information gained from company plant engineers in analyzing the various life categories as to their expected service lives will be beneficial.

**Tampa Electric's Comments:**

**Tampa Electric expects Polk Unit 1 to experience a different life span than expected for Tampa Electric's other major units because the Polk unit includes technology that is developmental in nature and disparate from what exists at other units. The assets at Polk Unit 1 more resemble refinery equipment which generally has a shorter life than typical coal-fired plant equipment.**

In response to whether there is any information gained from company plant engineers in analyzing the various life categories, no additional analysis regarding various life categories has been performed since what has been originally submitted to the Commission.

## DISTRIBUTION PLANT

**Account 361, Structures & Improvements** - The company has proposed no changes in the curve shape or service life for this account. Staff concurs with this decision. With an average service life of 44 years, an R4 curve, and the average age of 14.9 years, a remaining life of 30 years is produced. The net salvage of negative 3% remains in line with industry averages.

**Account 362, Station Equipment** - The company states that \$178,500 of the \$210,000 of abnormal salvage realized for this account in 1998 was related to the reversal of a transformer that was retired erroneously from the property record. Should this have been recorded as an adjustment rather than as salvage? Please explain the nature and cause of the remaining abnormal salvage for this account.

### Tampa Electric's Comments:

Note: The abnormal salvage in our response should read \$203,000 instead of \$210,000. Occasionally assets are retired incorrectly and the Company's accounting treatment to re-establish these assets is to credit salvage and debit construction. Reference T accounts below:

107	
Debit \$203,000 (2)	Credit \$203,000 (3)
108	
Debit \$203,000 (1)	Credit \$203,000 (2)
101	
Debit \$203,000 (3)	Credit \$203,000 (1)

1. Asset retired.
2. Asset re-established
3. Asset closed to CPR

The assets that made up the remaining abnormal salvage were a circuit breaker, regulator and miscellaneous items.

The company replaced five large substation transformers in 1997, and appears to be retaining this equipment in an emergency reserve capacity for future use. What was the accounting treatment afforded the equipment being replaced? What were the dollar amounts of the materials retired?

**Tampa Electric's Comments:**

The company places large items of substation equipment in a reserve capacity for future use. These assets remain in service in the same FERC account and the transfers of these assets are done internally in the Continuing Property Records to a spare location. Substation operations analyzes this equipment and makes the determination to either repair or retire. If the asset is repairable it remains in spare and is not retired. The original retirements associated with the equipment in question were \$42,208. The cost of the transformers retained as spares is \$357,571.

According to the company, a lengthening of asset lives is expected due to less frequent replacement of the larger cost assets in the stations. This is attributed to an improved maintenance program, installation of oil filtration systems on transformers, using more of the current system capacity rather than replacing assets, the installation of larger capacity equipment where replacement is required, and the installation of animal guard protection to prevent circuit breaker replacements due to animal contact.

Considering there have been few retirements related to this account, staff agrees with the company's proposed average service life of 36 years. This life, combined with an R2 curve and an average age of 13.6 years, results in an average remaining life of 25 years. Staff also agrees with the proposed decrease in net salvage from negative 15% to negative 10% as being more indicative of the company's recent experience with this account and well within industry averages.

**Account 364, Poles, Towers, and Fixtures** - This account has experienced retirements of less than 1%, making reliance on industry averages for life and salvage values necessary. Staff proposes an R1 curve as being more indicative of the pattern of expected retirements and more in line with industry averages. Using an age of 13.1 years and an average service life of 33 years with the R1 curve produces an average remaining life of 24 years.

It is staff's understanding that the removal of poles is labor intensive and that this account experiences large removal costs upon retirement. While staff has no problem with the company net salvage proposal of negative 35%, please provide a breakdown of the 1998 normal and abnormal salvage amounts for this account.

**Tampa Electric's Comments:**

Normal salvage	\$94,041
Abnormal salvage	(\$968)

**Account 365, Overhead Conductors** - Staff finds the current service life and salvage components prescribed for this account to be reasonable, but proposes use of an S1 curve as opposed to the S0.5 curve. Staff believes the S1 curve is more indicative of the expected pattern of retirements and a better representation for this account. The average remaining life produced from using the S1 curve with an age of 15.4 years and an average service life of 34 years is 21 years. Please provide a breakdown of the 1998 normal and abnormal salvage amounts.

**Tampa Electric's Comments:**

Normal salvage      \$313,555  
Abnormal salvage    \$36,336

**Account 366, Underground Conduit** - The company has proposed no changes in the curve or service life for this account, and staff concurs. Using an updated age with these currently prescribed components produces an average remaining life of 39 years.

Regarding salvage, while staff has no problem with the proposed zero net salvage, we are curious as to the nature and cause of the salvage realized in 1998. The total amount of salvage is higher than the amount of plant retired, which is quite remarkable for this account. The company also states that its major salvage sources for 1997 were termination cabinets and manholes. Staff would appreciate any insight the company could provide as to the amount of salvage that can be realized on such items and the portion of this account's investment that represents such items.

Additionally, the company states that the cost of removal incurred in 1995 was due in part to the removal of concrete hand holes and conduit. Was the conduit physically removed? If so, please provide the circumstances that can result in the physical removal of conduit, as this plant is generally abandoned in place.

**Tampa Electric's Comments:**

There are several things that affect the salvage accounts and the retirements accounts in 1998.

Salvage includes some materials from 1997, and there would always be timing problems due to the nature of the business. Salvage is accumulated until there is enough to attract a buyer and only then do we actually know what the price received will be depending on market value. That also would affect the amount of salvage dollars. You might have the same quantity but varying price fluctuation.

Retirements are reduced by CIAC, so technically they were not really lower than salvage, they just give that appearance, based on the way it was reported. Also during the year of 1998 we were implementing a new Work

Management System and we experienced some difficulties with retirement processing for the second half of 1998, which would have diminished the quantity of retirements. You will see an increased amount of retirements in 1999 due to this new system implementation.

There were a total of 3 handholes, 1 manhole and 1 termination cabinet salvaged during 1997, which accounts for 80% of salvage value realized that year. Items removed that are deemed reusable are credited to salvage at the current system average price (what it would cost us to buy one new) considered to be the market price and inventory is debited and the inventory level increased by that quantity.

Conduit, handholes, and manholes occasionally result in physical removal rather than abandoned in place. The circumstances that cause conduit, handholes and manholes to be physically removed are requirements by County, City, DOT or other governmental agencies involved with roadways, public right of ways. These agencies require that grass areas that are to be paved areas due to road widenings, etc must have these items removed. These items cannot be left in place due to the possibility of erosion, which might contribute to the pavement collapsing. If these items are deemed to be reusable we will salvage them and return to inventory.

**Account 367, Underground Conductors & Devices** - Staff finds the current prescribed service life, salvage, and curve shape components of this account to be reasonable and acceptable. When an average service life of 33 years and an age of 10.8 years are applied to the R2.5 curve, an average remaining life of 24 years is produced.

While staff has no objection to the company proposed zero net salvage value, the company's response to the initial review regarding the 1998 unusually high removal costs necessitates further inquiry. The company stated that the cost of removal was due in part to the removal of switches, terminations, and cable. Since it is staff's understanding that underground conductors are normally abandoned in place, please help us to understand the nature and cause of these removal costs.

**Tampa Electric's Comments:**

**TEC usually removes conductor and salvages it for scrap; it is not normally abandoned in place.**

**Account 368, Line Transformers** - Staff finds the company proposed average service life of 17 years to be reasonable and acceptable. Using the average age of 8.9 years and the S6 curve, the remaining life of 8.3 years is produced.

Because TECO uses location life accounting rather than cradle-to-grave accounting for line transformers, staff concurs with the net salvage proposal of 30%.

**Account 369.1, Overhead Services** - In its response to staff's request for a graph of the SC 33-year life curve being used for this account, the company stated that its depreciation package will not provide a picture graph for simulated plant balances as this is a mass asset account and not kept with vintage balances. Please provide the Simulated Plant Record (SPR) that shows the SC curve as the best fit for this account. Also, provide the calculation of the average age and average remaining life.

Staff is still trying to understand why salvage was so low for 1996 and 1997. Any information the company can provide would be appreciated. How much of the gross salvage recorded in 1995 - 1998 is reuse? How much is reimbursements? Staff understands that there were adjustments made to salvage for the years 1990 through 1994, but even after backing out the adjustments, the average net salvage for those years was 11.31%. In addition, including the low salvage for 1996 and 1997, the average net salvage for 1995 through 1998 was negative 2.53%. Staff believes this pattern indicates a need to increase the net salvage from negative 50% to negative 20%.

**Tampa Electric's Comments:**

1. Please see the attached SPR, bates stamped pages 1 – 12, for the Simulated Plan Record (SPR) that shows the SC curve as the best fit.
2. Please reference page 243 from the Book depreciation study for the calculation of the average age and average remaining life.
3. The salvage shown is what was booked for the years in question. Salvage for years 1996 through 1998 does not reflect terminal secondary salvage as does previous years that were adjusted using the best estimate possible. Terminal secondary salvage for years 1996 – 1998 is credited to Account 365 – Distribution Conductors and devices. As in other accounts, scrap material is held until there is enough to attract a buyer and the salvage price received is dependent upon the market value at that time.
4. \$28,721 is reuse in the gross salvage recorded for 1995 – 1998.

**Account 369.2, Underground Services** - While staff has no disagreement with the company's 35-year average service life or negative 15% net salvage proposals, we have some questions regarding the data shown in the study.

1. The additions and retirements shown for 1990 through 1995 differ from those shown as input data for the SPR run on the last study (p. 254). Please reconcile.
2. The company states that retirements for 1998 are understated due to a reporting problem. What were the actual retirements for 1998?

3. This account has experienced a growth rate of close to 40% over the 1994-1998 time period, with very few retirements. This activity would seem to infer a younger age rather than an older age as compared to the last study.
4. Please provide the simulated run (SPR) that shows the R4 curve as the best fit curve for this account.

**Tampa Electric's Comments:**

1. The depreciation study filed in 1995 used budget data for the 1995 information. Year 1990 through 1994 has been adjusted for CIAC.
2. Actual retirements are \$25,826.
3. The fact that the age increased 7/10 of one year rather than 4 years since the last study reflects the impacts of the growth in additions.
4. Please see attached SPR, bates stamped pages 13 - 22. There has not been enough activity in this account to depend on an SPR analysis. We propose no change to the curve type.

**Account 370. Meters** - Under cradle-to-grave accounting, a meter is not retired as it moves from location to location. Retirement occurs when the transformer can no longer be refurbished and is finally junked. The Federal Code of Regulations, Subchapter C, Part 101, Electric Plant Accounts, Account 370, Meters, states that the cost of removing and resetting meters shall be charged to account 586, Meter Expenses. Accordingly, one would expect very little gross salvage and removal cost to be realized upon retirement unless there are special conditions. In its response to staff's initial review, the company failed to sufficiently explain the circumstances surrounding the unusually high removal costs incurred during the last four years. Please include the number of single phase meters and three phase meters retired in each of past two years. Pending receipt of this information, staff will not make a net salvage proposal for this account at this time.

Staff believes an R3 curve is more indicative of the account's expected retirement pattern. Using the average service life of 25 years and an age of 11.1 years produces an average remaining life of 15.1 years.

**Tampa Electric's Comments:**

**Removal cost for meters provided by Meter Operations:**

	Single Phase Meter	Three Phase Meter
Shop Time	\$18.08	\$27.13
Field Time	22.61	22.61
Vehicle Time	2.03	2.43
Total	\$42.72	\$52.17

**Meter equipment retired 1997 and 1998:**

Equipment type	Year 1997 Quantity Retired	Year 1998 Quantity Retired
Single phase meter	6,741	8,711
Three phase meter	1,007	1,292
Current transformer secondary	197	190
Current transformer primary	66	19
Potential transformer secondary	60	14
Potential transformer primary	46	18
Recorder	13	237
<b>Total Equipment Retired</b>	<b>8,130</b>	<b>10,481</b>

**Account 373, Street Lighting and Signal Systems** - Staff agrees that the company proposed curve shape change from the R0.5 curve to the R2.5 curve is a better representation of the expected activity of this account. Using the R2.5 curve with an average service life of 19 years and an age of 7.8 years, an average remaining life of 12.4 years is produced. Staff agrees with maintaining the zero percent salvage.

#### TRANSMISSION PLANT

**Account 350, Land Rights:** The company proposal is to maintain the current average service life of 48 years with an R3 curve shape, a zero percent net salvage, and an average age of 12.6 years. The resulting remaining life of 36 years represents updating the currently approved remaining life with activity since the previous study and is reasonable and acceptable.

**Account 352, Structures and Improvements:** The company proposed 40 year remaining life represents an update of the currently approved R5, 50 year life characteristics with an average age of 10.2 years. No change in the currently prescribed negative 3% net salvage is being proposed. The company proposals appear reasonable and acceptable to staff.

**Account 353, Station Equipment:** The currently approved average service life for this account is 39 years and the company is proposing a move to a 45 year life. The retirement ratio over the last five years has averaged less than 1% making reliance on judgement and industry expectations for life and salvage projections necessary. Other companies in the state are experiencing lives in the mid to late 40 year range. Therefore, staff finds the company 45 year life proposal reasonable. However, staff proposes use of an R2 curve shape rather than the company proposed R1.5 curve shape as being more in line with current industry expectations. Using the account average age of 13.8 years results in an average remaining life of 34 years.

The company proposes a negative 5% net salvage factor, which is acceptable. However, staff would like to understand why there was a need for six new substations, and if any of the new substations resulted in retirement of existing substations. If so,

please provide the investment and reserve as of January 1, 1999 associated with the retiring substations.

**Tampa Electric's Comments:**

The new substations have not resulted in the replacement of existing assets.

One of the new substations was built to connect the Polk Power Station to the transmission grid. The other new additions are indicative of the growth that the area has experienced over the last four to five years.

The additions are needed to supply energy to new growth areas to the north and east of the city of Tampa. The construction increases reliability to the existing Tampa Electric substations and provides additional capacity to the system. The new capacity allows the company to better support the customer growth levels that had been causing a high utilization of existing capacity. These new assets also provide the ability to support the projected new growth in the area.

**Account 354, Towers and Fixtures:** The company proposes maintaining the currently prescribed 48 year average service life and negative 15% net salvage factor. While a change from an R3 curve shape to an R5 curve shape has been proposed, no justification or other support has been provided for the curve shape change. Please provide a discussion of significant changes that have occurred or are expected to occur in this account warranting this change.

**Tampa Electric's Comments:**

The lack of retirement experience in this account is the reason for the proposal change in curve types.

**Account 355, Poles and Fixtures:** According to the company, its standard for transmission poles has changed from wood to concrete. Please provide a discussion regarding why this standard has changed. Additionally, please discuss the various causes for retirement of wood poles versus concrete poles. Also, does the company have replacement plans for the wood transmission poles?

While staff finds a 34 year average service life with an R2 curve shape, and a net salvage of negative 30% reasonable at this time, we will defer making a life and salvage proposal pending receipt of the requested information.

**Tampa Electric's Comments:**

Several studies were performed in the late eighties and early nineties that proved it was cost effective to use concrete transmission poles instead of

wood poles. The primary benefit was because fewer structures per mile were needed with the concrete poles. Other reasons include the reduction in future maintenance due to woodpecker damage and pole rot as well as longer expected life. One of the intangible benefits was that we also had visited several hurricane sites and observed that spun concrete structures were less susceptible to high wind damage. Since then other changes in the industry and marketplace have made the use of concrete poles even more cost effective. We have an alliance with a local concrete pole manufacturer whereby they store all our poles in their inventory, they deliver them to the job site, and they pre-drill all the holes in the poles for us. We are able to do this due to the close proximity of the pole manufactures facilities to TEC's service territory. The savings from this arrangement have made the transition to concrete poles an even more beneficial decision.

Causes of retirement for wood poles include woodpecker damage, pole rot, lightning, and events of nature (hurricanes, tornadoes, etc.). Retirements for concrete poles include lightning and events of nature.

The company does not have an active plan for the replacement of wood transmission poles. When wood poles are retired, they are replaced with concrete poles.

**Account 356, Overhead Conductors & Devices:** The company has proposed a 35 year average service life with an R1.5 curve shape. The proposed curve shape assumes a higher retirement rate than the account has experienced and, lacking support for the change, staff believes an S2, 35 year life table is more indicative of the expected mortality pattern for this equipment. Using an average age of 12.9 years results in a 23 year average remaining life. The company proposed negative 20% net salvage factor is reasonable and acceptable.

**Account 356.01, Clearing Rights-of-Way:** The company has proposed no change for the life and salvage components in the sub-account and staff agrees with this action. The average service life of 48 years, an L4 curve, and the average age of 20.3 years produces a remaining life of 28 years. The salvage value of zero is also considered appropriate for this sub-account.

**Account 357, Underground Conduit:** Staff is concerned with the current age distribution provided for this account. Additions of \$5,508,836 were recorded in 1993 and there have been no retirements recorded since that time. However, the age distribution shows zero survivors for the 1993 vintage. Also, no additions were recorded in 1994, and yet the age distribution shows \$2.3M surviving for this vintage. Another source of concern is the 1996 additions that appear to have been more than reversed out in 1997. There has been no retirement or adjustment activity to account for these anomalies and we would like to understand the logic of each of these situations. Staff

will defer making a life and salvage proposal pending receipt of the requested information.

**Tampa Electric's Comments:**

The additions of \$5.5 million were added to this account in 1994 not 1993 as the staff indicates. This occurred in 1994 and the final closing of this project was in 1997. The adjustments were made for this account prior to final project closing to properly state our Continuing Property Records. The Determination of Original Cost Values at 12/31/98 have been adjusted to properly state the activity for accounts 357 Underground Conduit and 358 Underground Conductors and Devices. The additions for 1996 are related to another project and are not connected with the 1994 additions.

Please reference attached schedule of additions, adjustments and retirements for Account 357, bate stamped page 23.

**Account 358, Underground Conductors & Devices:** This is another account that staff has concerns with the provided age distribution. In 1994, additions totaled \$10,562, yet the age distribution shows \$3.2M currently surviving from this vintage. In 1997, additions recorded were \$3.2M, but the age distribution shows zero survivors from this vintage. Since there has been no retirement or adjustment activity, please explain the logic for the current 1994 and 1997 vintage survivors.

Additionally, the recorded additions in 1998 of negative \$28,656 appear to represent the reversal of the 1996 recorded additions. We would like to understand the logic of negative additions.

**Tampa Electric's Comments:**

Reference Account 357 for explanation for the 1994 additions.

The negative additions for 1998 are internal classification corrections in our construction system related to the 1996 additions. The project related to these expenditures was final closed in 1999 and the Determination of Original Cost Values will be adjusted in our next depreciation study to properly reflect the additions for Accounts 357 and 358 for years 1996 thru 1998.

Please reference attached schedule of additions, adjustments and retirements for Account 358, bate stamped page 24.

**Account 359, Roads & Trails:** As with easements, staff accepts the company proposed 50 year average service life, R5 shape curve, and zero net salvage factor. Please provide the resulting remaining life using the proposed curve shape. Additionally, staff would like to understand the nature and cause of the unusually large cost of removal incurred in 1996 and 1998 of 127% and 373%, respectively.

**Tampa Electric's Comments:**

Reference page 207 in the Depreciation Study for the remaining life using a R5 shape curve 36 years. The Company uses a contractor to perform all work necessary for installation/removal of gates, fencing and culverts. The contractor provides the Company with a breakdown of his charges between installation and cost of removal. Reference response to Question #10 in Docket No. 990529-E1, Item No. 10, Page 1 of 1 for 1998. This account had activity late in 1996 and the retirements were made in 1997. Note the low cost of removal in 1997 in relationship to retirement. Also cost of removal is in current dollars vs. retirement dollars being in historical costs. This over time has the tendency to cause cost of removal to increase in relationship to retirements.

The Company would like to understand the concern this has caused the FPSC Staff. The retirement activity for this account over the past three years is less than 1% of the total investment for this account. The relationship of this account to total transmission plant investment is about 1%.

**GENERAL PLANT**

**Account 390, Structures & Improvements:** The company proposed 38 year service life and R5 curve shape are reasonable and acceptable to staff. Using a 10.2 year average age, the resulting remaining life is 28 years. The salvage factor of negative 20% is also reasonable.

**Account 397.25, Communication Equipment - Fiber:** Before staff makes a proposal regarding this account, please provide the portion of the account's January 1, 1999 investment associated with switching equipment. Also, please provide how many and what type of switches are currently in service, and what services the switches provide. Additionally, please provide the company's planning regarding placement or replacement of fiber cable.

**Tampa Electric's Comments:**

The investment associated with the switching equipment in account 397.25 as of January 1, 1999 is approximately \$3.0 million. Tampa Electric's fiber based transmission telecommunications switching equipment consists of a variety of components supplied by two manufacturers, Nortel and Fore. The backbone network consists of the following:

Nortel OC-12 Ring Network Elements (8)  
Nortel OC-12 Linear Network Elements (7)  
Nortel OC-48 Linear Network Elements (8)  
Nortel 565 Linear Network Elements (2)  
Fore System ASX1000 Ring Network Elements (7)

Tampa Electric's Telecommunications Transmission Network is an efficient and cost effective complex wide area fiber optic/microwave hybrid communications network used in support of vital company functions including: protective relaying, SCADA, voice communications, EMS, data transfer, video communications, two-way voice dispatching, mobile data terminal dispatching, remote meter reading, demand side management, and distribution/substation automation. The telecommunications transmission network also provides connectivity to the local exchange carrier, long distance carriers, and disaster recovery facilities. Telecommunications facilities installed by Tampa Electric are intended to meet an existing or anticipated need by its regulated electric utility operation. In addition to providing for internal telecommunications capacity, Tampa Electric leases available telecommunications capacity within its network to certified telecommunications providers in order to maximize the usage of the telecommunications assets installed by Tampa Electric to meet the requirements of its electric utility operations. All telecommunications revenues received for the leasing are treated as above the line revenues for Tampa Electric.

The Telecommunications Department is responsible for the planning of all fiber cable installations. This planning is based on electric company communications requirements and is conducted on an on-going basis throughout the year. No additions are planned in 2000 at this time.

**Account 392.01, Automobiles:** Staff has discovered that an age distribution for this account was not submitted with the current study filing. Please provide the distribution supporting the 6.6 year average age.

**Tampa Electric's Comments:**

**Please see attached Determination of Original Cost Values – Account 392.01 – Automobile, bates stamped page 25.**

Staff proposes an average service life of 7 years for this account as being in line with the weighted average age of the automobiles retired during the most recent three year period. Using an R3 curve shape and a 6.6 year average age results in an average remaining life of 1.6 years. Also, staff finds the company proposed net salvage factor of 24% to be reasonable.

**Account 392.02, Light Trucks:** The company proposed 10 year average service life, L2 curve shape, 5.0 year average age, 6 year average remaining life, and 20% net salvage factor are reasonable and acceptable. The average service life recognizes improved maintenance programs and high replacement costs.

**Account 392.03, Heavy Trucks:** The company proposed 15 year average service life, L2 curve shape, and 20% net salvage are in line with the account's experience and are acceptable to staff. Using an average age of 8.5 years results in a 8.9 year average remaining life.

**Account 397.01, Energy Management Systems:** The company proposed 2 year recovery schedule for the remaining net investment in this account is in line with the expected retirement date and is acceptable.

### **AMORTIZABLE ACCOUNTS**

TECO has proposed that the depreciable portion of Accounts 393 (Stores), 394 (Tools, Shop & Garage), 395 (Laboratory), and 396 (Power Operated) be amortized over 7 years, beginning January 1, 1999. The company states that these investments are minor and represent small value items which are difficult to track. In an effort to streamline depreciation procedures, and in line with the Amended Retirement Unit Rule No. 25-6.0142, Florida Administrative Code, staff finds these proposals acceptable. Please provide a discussion and illustration regarding how the company will implement these amortizations.

**Account 391, Office Furniture and Equipment:** Staff finds the company proposed 7 year amortization for the January 1, 1999 embedded net investment and subsequent vintage additions to be acceptable.

**Account 391.02, Computer Equipment-Workstations:** The company has proposed to shorten the amortization period from the currently approved 5 years to 3 years. Staff accepts the proposal as matching the company's current replacement policy of 3 years for this type of equipment.

**Account 391.04, Computer Equipment - Mainframe:** Staff accepts the company proposal to amortize the January 1, 1999 embedded net investment and subsequent vintage additions over a 5 year period.

**Accounts 397 (Communication Equipment), 398 (Miscellaneous Equipment):** Staff agrees with the company proposed 7 year amortization period for the January 1, 1999 embedded net investment and subsequent vintage additions.

### **Tampa Electric's Comments:**

**To implement the amortization for these accounts the company will begin amortizing the remaining unrecovered cost as of 12/31/98 over the**

approved amortization period. All new additions starting in year 1999 will be kept by vintage and amortized over the approved amortization period.

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

YEAR	ADDITIONS	RETIREMENTS	BALANCES
----	-----	-----	-----
1998	2711945.	73862.	47776292.
1997	2382601.	111716.	45138209.
1996	2551555.	154730.	42867324.
1995	2052246.	174022.	40470498.
1994	2185677.	180387.	38590888.
1993	2197307.	227112.	36585598.
1992	1942398.	240286.	34615403.
1991	1866097.	227408.	32913290.
1990	1879955.	521798.	31274602.
1989	2015273.	544755.	29651462.
1988	2018254.	523081.	30694331.
1987	1891111.	627319.	28933523.
1986	1821565.	664553.	27351161.
1985	2037229.	800646.	25856671.
1984	1905125.	728590.	24213498.
1983	1734758.	589236.	22666965.
1982	1600679.	494071.	21222213.
1981	1530192.	273408.	19864702.
1980	1401313.	227382.	18607918.
1979	1329032.	188832.	17433987.
1978	1124340.	243474.	16293787.
1977	960189.	216645.	15412921.
1976	1020626.	200277.	14669377.
1975	938095.	206292.	13849028.
1974	1486890.	227486.	13117225.
1973	1430957.	248427.	11857821.
1972	1454167.	350777.	10675291.
1971	1109754.	324378.	9571901.
1970	1019441.	203242.	8786525.
1969	872976.	177056.	7970326.
1968	797362.	168360.	7274406.
1967	697879.	154717.	6645404.
1966	572421.	158342.	6102242.
1965	545496.	135567.	5688163.
1964	514552.	99093.	5278234.
1963	446709.	124216.	4862775.
1962	432289.	114104.	4540282.
1961	382467.	94684.	4222097.
1960	426309.	77434.	3934314.
1959	433695.	72951.	3585439.
1958	381438.	59374.	3224695.
1957	341917.	59212.	2902631.

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

YEAR	ADDITIONS	RETIREMENTS	BALANCES
----	-----	-----	-----
1956	348356.	35066.	2619926.
1955	276575.	29752.	2306636.
1954	299166.	28018.	2059813.
1953	263103.	17803.	1788665.
1952	185159.	27476.	1543365.
1951	173391.	16199.	1385682.
1950	178310.	11903.	1228490.
1949	152119.	10318.	1062083.
1948	135346.	8611.	920282.
1947	127365.	7480.	793547.
1946	70333.	4390.	673662.
1945	37608.	2499.	607719.
1944	29933.	1341.	572610.
1943	15229.	2004.	544018.
1942	21209.	2664.	530793.
1941	39421.	8344.	512248.
1940	48675.	7913.	481171.
1939	36206.	6664.	440409.
1938	32308.	5523.	410867.
1937	40117.	5154.	384082.
1936	30048.	3845.	349119.
1935	28843.	3277.	322916.
1934	19561.	2716.	297350.
1933	10289.	2080.	280505.
1932	13615.	861.	272296.
1931	19904.	772.	259542.
1930	15580.	166.	240410.
1929	23136.	36.	224996.
1928	30209.	29.	201896.
1927	45791.	520.	171716.
1926	60815.	3500.	126445.
1925	28173.	300.	69130.
1924	15946.	0.	41257.
1923	5518.	0.	25311.
1922	0.	0.	19793.
1921	0.	0.	19793.
1920	0.	0.	19793.
1919	0.	0.	19793.
1918	0.	0.	19793.
1917	0.	0.	19793.
1916	0.	0.	19793.
1915	0.	0.	19793.
1914	0.	0.	19793.

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

YEAR	ADDITIONS	RETIREMENTS	BALANCES
----	-----	-----	-----
1913	0.	0.	19793.
1912	0.	0.	19793.
1911	0.	0.	19793.
1910	0.	0.	19793.
1909	670.	0.	19793.
1908	1523.	0.	19123.
1907	2600.	0.	17600.
1906	0.	0.	15000.
1905	0.	0.	15000.
1904	0.	0.	15000.
1903	0.	0.	15000.
1902	0.	0.	15000.
1901	0.	0.	15000.
1900	0.	0.	15000.
1899	15000.	0.	15000.
	-----	-----	-----
	59321431.	11546526.	821376201.

REPORT DATE:

01/06/00

Tampa Electric Company

SIMULATED PLANT-RECORD METHOD

36901 Overhead Services

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 3

LAST TEST POINT= 1998

DISPERSION	AVERAGE SERVICE LIFE	SUM OF SQUARES DIFF.	INDEX OF VARIATION	RET.
-----	-----	-----	-----	-----
SC	36.7 YRS.	0.1020E+14	46	1
R0.5	33.1 YRS.	0.1171E+14	50	1
L0	36.4 YRS.	0.1211E+14	51	
S-.5	32.8 YRS.	0.1236E+14	51	1
L0.5	33.5 YRS.	0.1376E+14	54	
R1	30.5 YRS.	0.1393E+14	54	1
S0	30.3 YRS.	0.1523E+14	57	1
L1	31.2 YRS.	0.1579E+14	58	1
R1.5	29.0 YRS.	0.1628E+14	59	1
S0.5	28.9 YRS.	0.1730E+14	61	1
L1.5	29.5 YRS.	0.1782E+14	62	1
R2	27.4 YRS.	0.1896E+14	64	1
S1	27.6 YRS.	0.1966E+14	65	1
L2	28.2 YRS.	0.2014E+14	65	1
R2.5	26.7 YRS.	0.2121E+14	67	1
S1.5	26.9 YRS.	0.2146E+14	68	1
S2	26.3 YRS.	0.2343E+14	71	1
R3	25.8 YRS.	0.2374E+14	71	1
L3	26.5 YRS.	0.2417E+14	72	1
S3	25.4 YRS.	0.2642E+14	75	1
R4	25.1 YRS.	0.2741E+14	76	1
L4	25.4 YRS.	0.2798E+14	77	1
S4	25.0 YRS.	0.2973E+14	80	1
L5	24.7 YRS.	0.3105E+14	81	1
R5	24.8 YRS.	0.3146E+14	82	1
S5	24.6 YRS.	0.3268E+14	84	1
S6	24.5 YRS.	0.3527E+14	87	1
SQ	26.4 YRS.	0.4272E+14	96	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

REPORT DATE:

01/06/00

Tampa Electric Company

SIMULATED PLANT-RECORD METHOD

36901 Overhead Services

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 2

LAST TEST POINT= 1998

DISPERSION -----	AVERAGE SERVICE LIFE -----	SUM OF SQUARES DIFF. -----	INDEX OF VARIATION -----	RET. -----
SC	36.0 YRS.	0.1320E+14	44	1
R0.5	32.5 YRS.	0.1509E+14	47	1
L0	35.6 YRS.	0.1551E+14	48	
S-.5	32.5 YRS.	0.1584E+14	48	1
L0.5	33.2 YRS.	0.1752E+14	51	
R1	30.0 YRS.	0.1782E+14	51	1
S0	30.0 YRS.	0.1933E+14	53	1
L1	30.9 YRS.	0.1994E+14	54	1
R1.5	28.4 YRS.	0.2067E+14	55	1
S0.5	28.6 YRS.	0.2183E+14	56	1
L1.5	29.3 YRS.	0.2239E+14	57	1
R2	27.1 YRS.	0.2390E+14	59	1
S1	27.4 YRS.	0.2464E+14	60	1
L2	28.0 YRS.	0.2520E+14	61	1
R2.5	26.4 YRS.	0.2664E+14	62	1
S1.5	26.7 YRS.	0.2684E+14	63	1
S2	26.0 YRS.	0.2920E+14	65	1
R3	25.5 YRS.	0.2963E+14	66	1
L3	26.1 YRS.	0.3004E+14	66	1
S3	25.1 YRS.	0.3280E+14	69	1
R4	24.9 YRS.	0.3407E+14	71	1
L4	25.0 YRS.	0.3471E+14	71	1
S4	24.5 YRS.	0.3683E+14	74	1
L5	24.6 YRS.	0.3844E+14	75	1
R5	24.5 YRS.	0.3903E+14	76	1
S5	24.4 YRS.	0.4047E+14	77	1
S6	24.2 YRS.	0.4353E+14	80	1
SQ	26.4 YRS.	0.5721E+14	92	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

3E901 Overhead Services

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 1

LAST TEST POINT= 1998

DISPERSION	AVERAGE SERVICE LIFE	SUM OF SQUARES DIFF.	INDEX OF VARIATION	RET.
SC	36.7 YRS.	0.1120E+14	33	1
R0.5	33.1 YRS.	0.1269E+14	35	1
L0	36.4 YRS.	0.1292E+14	35	1
S-.5	32.8 YRS.	0.1325E+14	36	1
L0.5	33.5 YRS.	0.1453E+14	37	1
R1	30.5 YRS.	0.1496E+14	38	1
S0	30.3 YRS.	0.1604E+14	39	1
L1	31.2 YRS.	0.1650E+14	40	1
R1.5	28.7 YRS.	0.1734E+14	41	1
S0.5	28.9 YRS.	0.1815E+14	42	1
L1.5	29.5 YRS.	0.1857E+14	42	1
R2	27.4 YRS.	0.2003E+14	44	1
S1	27.6 YRS.	0.2055E+14	45	1
L2	28.2 YRS.	0.2093E+14	45	1
R2.5	26.7 YRS.	0.2231E+14	47	1
S1.5	26.9 YRS.	0.2243E+14	47	1
S2	26.3 YRS.	0.2446E+14	49	1
R3	25.8 YRS.	0.2473E+14	49	1
L3	26.5 YRS.	0.2524E+14	50	1
S3	25.4 YRS.	0.2752E+14	52	1
R4	25.1 YRS.	0.2847E+14	53	1
L4	25.4 YRS.	0.2938E+14	54	1
S4	24.7 YRS.	0.3105E+14	55	1
L5	24.7 YRS.	0.3266E+14	56	1
R5	24.5 YRS.	0.3299E+14	57	1
S5	24.6 YRS.	0.3452E+14	58	1
S6	24.5 YRS.	0.3751E+14	61	1
SQ	26.4 YRS.	0.5256E+14	72	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

36901 Overhead Services

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 1

INTERVAL BETWEEN TEST POINTS= 0

LAST TEST POINT= 1998

DISPERSION	AVERAGE SERVICE LIFE	SUM OF SQUARES DIFF.	INDEX OF VARIATION	RET.
-----	-----	-----	-----	-----
R0.5	38.6 YRS.	0.6285E+08	0	1
S4	28.2 YRS.	0.1182E+09	0	1
SC	43.1 YRS.	0.1677E+09	0	1
S3	28.9 YRS.	0.2061E+09	0	1
S2	29.9 YRS.	0.2101E+09	0	1
S5	27.8 YRS.	0.3947E+09	0	1
L1	36.1 YRS.	0.5030E+09	0	
S1	31.8 YRS.	0.5825E+09	0	1
R4	28.4 YRS.	0.6566E+09	0	1
R3	29.5 YRS.	0.8494E+09	0	1
R1.5	33.1 YRS.	0.1161E+10	0	1
S0.5	33.3 YRS.	0.1194E+10	0	1
L0	42.5 YRS.	0.1839E+10	0	
L0.5	39.2 YRS.	0.2605E+10	1	
R1	35.2 YRS.	0.2680E+10	1	1
R2	31.3 YRS.	0.2958E+10	1	1
L3	30.3 YRS.	0.3115E+10	1	1
L2	32.6 YRS.	0.3531E+10	1	1
S-.5	38.5 YRS.	0.3964E+10	1	1
S0	34.8 YRS.	0.4347E+10	1	1
L4	28.7 YRS.	0.4395E+10	1	1
S1.5	30.7 YRS.	0.4950E+10	1	1
S6	27.6 YRS.	0.5608E+10	1	1
L1.5	34.3 YRS.	0.6125E+10	1	1
R5	27.7 YRS.	0.6454E+10	1	1
R2.5	30.2 YRS.	0.7262E+10	1	1
L5	28.0 YRS.	0.1067E+11	2	1
SQ	30.1 YRS.	0.7265E+13	56	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36901 Overhead Services

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

36901 Overhead Services

PERIOD RETIREMENTS METHOD

RETIREMENT BAND: 1993 THROUGH 1998

ACTUAL RETIREMENTS: 920443.

DISPERSION	AVERAGE SERVICE LIFE	SIMULATED RETIREMENTS	DIFFERENCE	INDEX OF VARIATION
-----	-----	-----	-----	-----
SC	169.4 YRS.	920431.00	12.00	396
R0.5	135.4 YRS.	920395.00	48.00	397
R1	105.5 YRS.	920407.00	36.00	401
S-.5	122.4 YRS.	920427.00	16.00	402
L0	132.4 YRS.	920403.00	40.00	406
R1.5	86.0 YRS.	920359.00	84.00	407
L0.5	108.0 YRS.	920415.00	28.00	411
S0	91.3 YRS.	920415.00	28.00	415
R2	71.2 YRS.	920383.00	60.00	418
S0.5	78.7 YRS.	920399.00	44.00	423
L1	88.9 YRS.	920399.00	44.00	423
R2.5	63.1 YRS.	920415.00	28.00	430
L1.5	77.3 YRS.	920391.00	52.00	431
S1	68.8 YRS.	920355.00	88.00	436
S1.5	63.0 YRS.	920363.00	80.00	444
L2	67.7 YRS.	920427.00	16.00	445
R3	56.8 YRS.	920407.00	36.00	445
SQ	46.4 YRS.	951703.00	-31260.00	453
S2	58.0 YRS.	920367.00	76.00	457
L3	57.3 YRS.	920307.00	136.00	465
S3	52.4 YRS.	920323.00	120.00	475
R4	50.6 YRS.	920159.00	284.00	475
L4	51.2 YRS.	920355.00	88.00	491
S4	48.7 YRS.	920299.00	144.00	497
L5	48.3 YRS.	920163.00	280.00	513
R5	47.4 YRS.	920387.00	56.00	520
S5	47.2 YRS.	920263.00	180.00	528
S6	46.5 YRS.	920239.00	204.00	563

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36902 Underground Service

YEAR	ADDITIONS	RETIREMENTS	BALANCES
----	-----	-----	-----
1998	4278812.	13685.	51653501.
1997	3721024.	17757.	47388374.
1996	3412083.	21580.	43685106.
1995	3397452.	34212.	40294603.
1994	2549444.	16053.	36931363.
1993	2623776.	17896.	34397973.
1992	2414583.	27896.	31792092.
1991	2127452.	59476.	29405405.
1990	2432376.	40133.	27337429.
1989	2580426.	9894.	24905053.
1988	2503863.	0.	22369941.
1987	2361419.	0.	19866078.
1986	2749231.	0.	17507366.
1985	2472590.	0.	14758135.
1984	2398343.	0.	12287552.
1983	1927672.	0.	9889209.
1982	1374182.	0.	7961537.
1981	1447016.	0.	6587355.
1980	1239089.	0.	5140339.
1979	1008850.	0.	3901250.
1978	763688.	0.	2892400.
1977	516130.	0.	2128712.
1976	411112.	0.	1612582.
1975	337511.	0.	1201470.
1974	380982.	0.	863959.
1973	198446.	684.	482977.
1972	0.	1468.	285215.
1971	24478.	2814.	286683.
1970	86335.	1478.	265019.
1969	58653.	0.	180162.
1968	76874.	0.	121509.
1967	27774.	0.	44635.
1966	0.	0.	16861.
1965	0.	0.	16861.
1964	1070.	1670.	16861.
1963	0.	0.	17461.
1962	2080.	47.	17461.
1961	6769.	0.	15428.
1960	6090.	0.	8659.
1959	2569.	0.	2569.
	-----	-----	-----
	51920244.	266743.	498537145.

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

36902 Underground Service

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 3

LAST TEST POINT= 1998

DISPERSION -----	AVERAGE SERVICE LIFE -----	SUM OF SQUARES DIFF. -----	INDEX OF VARIATION -----	RET. -----
S0	168.3 YRS.	0.1558E+10	0	
S0.5	123.2 YRS.	0.1585E+10	0	
L1.5	110.5 YRS.	0.1732E+10	0	
R3	65.8 YRS.	0.1759E+10	0	
L0	351.3 YRS.	0.1946E+10	0	
L1	157.1 YRS.	0.1954E+10	0	
L0.5	262.3 YRS.	0.1965E+10	0	
R2.5	123.2 YRS.	0.2268E+10	1	
R2	190.8 YRS.	0.2499E+10	1	
S1	77.2 YRS.	0.2524E+10	1	
S-.5	495.2 YRS.	0.2635E+10	1	
L2	70.0 YRS.	0.2675E+10	1	
R1.5	331.6 YRS.	0.2686E+10	1	
R1	476.1 YRS.	0.2740E+10	1	
R0.5	694.5 YRS.	0.2775E+10	1	
SC	918.8 YRS.	0.2787E+10	1	
S1.5	63.4 YRS.	0.2908E+10	1	
R4	38.6 YRS.	0.5236E+10	1	
S2	48.6 YRS.	0.5516E+10	1	
L3	45.6 YRS.	0.5774E+10	1	
S3	37.6 YRS.	0.9061E+10	2	
L4	35.3 YRS.	0.1024E+11	2	
S4	31.5 YRS.	0.1264E+11	2	
R5	30.2 YRS.	0.1301E+11	2	
L5	30.4 YRS.	0.1363E+11	2	
S5	28.8 YRS.	0.1428E+11	2	
S6	27.5 YRS.	0.1511E+11	2	1
SQ	29.9 YRS.	0.4927E+11	4	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36902 Underground Service

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

36902 Underground Service

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 2

LAST TEST POINT= 1998

DISPERSION	AVERAGE SERVICE LIFE	SUM OF SQUARES DIFF.	INDEX OF VARIATION	RET.
-----	-----	-----	-----	-----
L0	337.3 YRS.	0.2491E+10	0	
L0.5	251.9 YRS.	0.2492E+10	0	
R2.5	118.3 YRS.	0.2606E+10	0	
L1	152.3 YRS.	0.2618E+10	0	
R2	183.1 YRS.	0.2674E+10	0	
S-.5	470.9 YRS.	0.2729E+10	0	
R1.5	315.1 YRS.	0.2756E+10	0	
R1	452.4 YRS.	0.2788E+10	0	
R0.5	659.9 YRS.	0.2806E+10	0	
SC	865.0 YRS.	0.2815E+10	0	
S0	163.2 YRS.	0.2826E+10	0	
L1.5	107.2 YRS.	0.3004E+10	0	
S0.5	119.5 YRS.	0.3121E+10	0	
R3	64.4 YRS.	0.3291E+10	0	
S1	75.6 YRS.	0.5910E+10	1	
L2	68.5 YRS.	0.6246E+10	1	
S1.5	62.1 YRS.	0.6710E+10	1	
R4	38.2 YRS.	0.1132E+11	1	
S2	48.1 YRS.	0.1171E+11	1	
L3	45.1 YRS.	0.1218E+11	1	
S3	37.2 YRS.	0.1803E+11	2	
L4	34.9 YRS.	0.2008E+11	2	
S4	31.2 YRS.	0.2417E+11	2	
R5	29.8 YRS.	0.2473E+11	2	
L5	30.0 YRS.	0.2578E+11	2	
S5	28.5 YRS.	0.2708E+11	2	
S6	27.5 YRS.	0.2761E+11	2	1
SQ	29.9 YRS.	0.7858E+11	4	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36902 Underground Service

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

36902 Underground Service

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 10

INTERVAL BETWEEN TEST POINTS= 1

LAST TEST POINT= 1998

DISPERSION	AVERAGE SERVICE LIFE	SUM OF SQUARES DIFF.	INDEX OF VARIATION	RET.
-----	-----	-----	-----	-----
S0	163.3 YRS.	0.4602E+10	0	
S0.5	119.5 YRS.	0.4651E+10	0	
L1.5	107.2 YRS.	0.4999E+10	0	
R3	64.4 YRS.	0.5063E+10	0	
L0	344.3 YRS.	0.5365E+10	0	
L1	153.9 YRS.	0.5403E+10	0	
L0.5	254.5 YRS.	0.5405E+10	0	
R2.5	119.6 YRS.	0.6003E+10	0	
R2	187.0 YRS.	0.6432E+10	0	
S1	74.9 YRS.	0.6452E+10	0	
S-.5	485.3 YRS.	0.6681E+10	1	
L2	67.9 YRS.	0.6724E+10	1	
R1.5	324.9 YRS.	0.6779E+10	1	
R1	466.5 YRS.	0.6874E+10	1	
R0.5	680.5 YRS.	0.6943E+10	1	
SC	891.5 YRS.	0.6961E+10	1	
S1.5	62.2 YRS.	0.7171E+10	1	
R4	37.8 YRS.	0.1207E+11	1	
S2	47.6 YRS.	0.1232E+11	1	
L3	44.7 YRS.	0.1284E+11	1	
S3	36.9 YRS.	0.1973E+11	1	
L4	34.6 YRS.	0.2225E+11	1	
S4	30.9 YRS.	0.2755E+11	2	
R5	29.6 YRS.	0.2831E+11	2	
L5	30.0 YRS.	0.2964E+11	2	
S5	28.5 YRS.	0.3143E+11	2	
S6	27.2 YRS.	0.3191E+11	2	1
SQ	29.3 YRS.	0.8745E+11	3	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36902 Underground Service

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD

35902 Underground Service

SIMULATED BALANCES METHOD

NO. OF TEST POINTS= 1

INTERVAL BETWEEN TEST POINTS= 0

LAST TEST POINT= 1998

DISPERSION -----	AVERAGE SERVICE LIFE -----	SUM OF SQUARES DIFF. -----	INDEX OF VARIATION -----	RET. -----
S-.5	485.3 YRS.	0.1024E+04	0	
R2.5	122.5 YRS.	0.2304E+04	0	
S0	171.6 YRS.	0.3098E+05	0	
S0.5	125.6 YRS.	0.4840E+05	0	
R0.5	677.0 YRS.	0.1156E+06	0	
L0.5	262.2 YRS.	0.1211E+06	0	
L3	47.0 YRS.	0.1325E+06	0	
S2	50.0 YRS.	0.1600E+06	0	
R2	187.9 YRS.	0.1764E+06	0	
L1	158.6 YRS.	0.2500E+06	0	
S6	28.0 YRS.	0.3600E+06	0	1
R4	39.5 YRS.	0.3745E+06	0	
R1.5	323.2 YRS.	0.3894E+06	0	
SC	891.5 YRS.	0.4356E+06	0	
R1	464.1 YRS.	0.7191E+06	0	
S1	79.5 YRS.	0.8911E+06	0	
R3	67.4 YRS.	0.1098E+07	0	
L0	354.7 YRS.	0.1272E+07	0	
L4	36.0 YRS.	0.3595E+07	0	
S1.5	65.3 YRS.	0.4477E+07	0	
L1.5	111.6 YRS.	0.5494E+07	0	
L2	72.0 YRS.	0.5876E+07	0	
S3	38.3 YRS.	0.1052E+08	0	
L5	31.0 YRS.	0.2131E+08	0	
S4	31.8 YRS.	0.4700E+08	0	
R5	30.6 YRS.	0.8739E+08	0	
S5	29.3 YRS.	0.1097E+09	0	
SQ	30.2 YRS.	0.2060E+11	2	1

REPORT DATE:

01/06/00

Tampa Electric Company  
SIMULATED PLANT-RECORD METHOD  
INPUT DATA

36302 Underground Service

REPORT DATE: 01/06/00

36902 Underground Service

PERIOD RETIREMENTS METHOD

RETIREMENT BAND: 1993 THROUGH 1998

ACTUAL RETIREMENTS: 121184.

DISPERSION	AVERAGE SERVICE LIFE	SIMULATED RETIREMENTS	DIFFERENCE	INDEX OF VARIATION
-----	-----	-----	-----	-----
SC	***** YRS.	121188.00	-4.00	390
R0.5	770.9 YRS.	121180.00	4.00	391
R1	531.4 YRS.	121176.00	8.00	391
R1.5	370.3 YRS.	121176.00	8.00	392
S-.5	555.8 YRS.	121184.00	0.00	393
R2	216.0 YRS.	121196.00	-12.00	395
R2.5	141.3 YRS.	121180.00	4.00	401
L0	413.3 YRS.	121186.00	-2.00	402
L0.5	306.3 YRS.	121182.00	2.00	402
L1	184.3 YRS.	121174.00	10.00	409
S0	202.7 YRS.	121184.00	0.00	416
S0.5	148.0 YRS.	121184.00	0.00	423
L1.5	130.5 YRS.	121174.00	10.00	424
R3	78.0 YRS.	121184.00	0.00	431
S1	93.0 YRS.	121178.00	6.00	467
L2	84.0 YRS.	121160.00	24.00	472
S1.5	76.2 YRS.	121162.00	22.00	478
R4	44.7 YRS.	121164.00	20.00	542
S2	57.2 YRS.	121186.00	-2.00	546
L3	53.6 YRS.	121176.00	8.00	549
S3	42.8 YRS.	121134.00	50.00	629
L4	39.8 YRS.	121104.00	80.00	657
S4	34.8 YRS.	121114.00	70.00	716
R5	33.1 YRS.	121000.00	184.00	720
L5	33.4 YRS.	121154.00	30.00	746
S5	31.4 YRS.	121032.00	152.00	760
S6	30.1 YRS.	121110.00	74.00	860
SQ	29.6 YRS.	105710.00	15474.00	1601

TAMPA ELECTRIC COMPANY - DECEMBER 31, 1998

ACCOUNT - 357 - UNDERGROUND CONDUIT

23

YEAR	ADDITIONS	ADJUSTMENTS	ADJUSTED ADDITIONS	RETIREMENTS	TOTAL
1998	32,636.60	0.00	32,636.60	0.00	6,409,807.26
1997	18,117.91	0.00	18,117.91	0.00	6,377,170.66
1996	2,836,742.21	(28,661.41)	2,808,080.80	0.00	6,359,052.75
1995	576,316.57	0.00	576,316.57	0.00	3,550,971.95
1994	5,508,836.31	(3,229,338.54)	2,279,497.77	0.00	2,974,655.38
1993	0.00	0.00	0.00	0.00	695,157.61
1992	0.00	0.00	0.00	0.00	695,157.61
1991	0.00	0.00	0.00	0.00	695,157.61
1990	0.00	0.00	0.00	0.00	695,157.61
TOTALS	8,972,649.60	(3,257,999.95)	5,714,649.65		

TAMPA ELECTRIC COMPANY - DECEMBER 31, 1998

ACCOUNT - 358 - UNDERGROUND CONDUCTOR AND DEVICES

24

YEAR	ADDITIONS	ADJUSTMENTS	ADJUSTED ADDITIONS	RETIREMENTS	TOTAL
1998	-	0.00	0.00	0.00	4,174,656.80
1997	-	0.00	0.00	0.00	4,174,656.80
1996	-	28,656.13	28,656.13	0.00	4,174,656.80
1995	-	0.00	0.00	0.00	4,146,000.67
1994	10,563.39	3,218,773.43	3,229,336.82	0.00	4,146,000.67
1993	0.00	0.00	0.00	0.00	916,663.85
1992	0.00	0.00	0.00	0.00	916,663.85
1991	0.00	0.00	0.00	0.00	916,663.85
1990	0.00	0.00	0.00	0.00	916,663.85
TOTALS	10,563.39	3,247,429.56	3,257,992.95		



TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Average Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)	(\$)	(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Big Bend Common Facilities: Structures &amp; Improvements</b>										
1998	65	0.5	193,031.92	386,063.83	36.5	14,091,329.80	36.0	13,898,297.88	0.013709	5,292.55
1997	65	1.5	203,308.02	135,538.68	37.4	5,069,146.63	35.9	4,865,838.61	0.040065	5,430.36
1996	65	2.5	2,634,627.13	1,053,850.85	38.4	40,467,872.64	35.9	37,833,245.52	0.065096	68,601.47
1995	65	3.5	2,835,675.61	810,193.03	39.4	31,921,605.38	35.9	29,085,929.78	0.088900	72,026.16
1994	65	4.5	4,323,782.03	960,840.45	40.3	38,721,870.14	35.8	34,398,088.11	0.111568	107,199.05
1993	65	5.5	7,434,393.84	1,351,707.97	41.3	55,825,539.16	35.8	48,391,145.33	0.132302	178,833.67
1992	65	6.5	3,396,754.40	522,577.60	42.3	22,105,032.48	35.8	18,708,278.08	0.152070	79,468.38
1991	65	7.5	2,822,597.25	376,346.30	43.2	16,258,160.16	35.8	13,473,197.54	0.170939	64,332.26
1990	65	8.5	6,232,889.01	733,281.06	44.2	32,411,022.85	35.8	26,251,461.95	0.188970	138,568.12
1989	65	9.5	3,320,046.32	349,478.56	45.1	15,761,483.06	35.8	12,511,332.45	0.206215	72,067.72
1988	65	10.5	1,773,756.39	168,929.18	46.1	7,787,635.20	35.8	6,047,664.64	0.222726	37,624.92
1987	65	11.5	961,052.59	83,569.79	47.1	3,936,137.11	35.8	2,991,798.48	0.238549	19,935.49
1986	65	12.5	12,168,599.25	973,487.94	48.0	46,727,421.12	35.8	34,850,868.25	0.253726	246,999.20
1985	65	13.5	112,589,033.27	8,339,928.39	49.0	408,656,491.11	35.8	298,569,436.36	0.268295	2,237,561.09
1984	65	14.5	76,010,070.25	5,242,073.81	49.9	261,579,483.12	35.8	187,666,242.40	0.282292	1,479,795.50
1983	65	15.5	15,018,930.22	968,963.24	50.9	49,320,228.92	35.8	34,688,883.99	0.295750	286,570.88
1982	65	16.5	11,032,540.04	668,638.79	51.8	34,635,489.32	35.8	23,937,268.68	0.308700	206,408.79
1981	65	17.5	3,809,898.58	217,708.49	52.8	11,495,008.27	35.8	7,793,963.94	0.321170	69,921.44
1980	65	18.5	11,187,175.70	604,712.20	53.7	32,473,045.14	35.8	21,648,696.76	0.333187	201,482.24
1979	65	19.5	4,755,035.03	243,847.95	54.7	13,338,482.87	35.8	8,729,756.61	0.344773	84,072.19
1978	65	20.5	12,225,434.53	596,362.66	55.6	33,157,763.90	35.8	21,349,783.23	0.355953	212,277.08
1977	65	21.5	8,443,201.36	392,707.04	56.6	22,227,218.46	35.8	14,058,912.03	0.366747	144,024.13
1976	65	22.5	134,286,565.73	5,968,291.81	57.5	343,176,779.08	35.8	213,664,846.80	0.377175	2,251,090.46
1975	65	23.5	3,188,845.43	135,695.55	58.5	7,938,189.68	35.8	4,857,900.69	0.387255	52,548.78
1974	65	24.5	913,119.41	37,270.18	59.4	2,213,848.69	35.8	1,334,272.44	0.397003	14,796.37
1973	65	25.5	12,996,150.74	509,652.97	60.3	30,732,074.09	35.8	18,245,576.33	0.406438	207,142.33
1972	65	26.5	0.00	0.00	61.3	0.00	35.8	0.00	0.415572	0.00
1971	65	27.5	0.00	0.00	62.2	0.00	35.8	0.00	0.424420	0.00
1970	65	28.5	236,791,676.30	8,308,479.87	63.2	525,095,927.78	35.8	297,443,579.35	0.432996	3,597,538.55
		17.2	691,548,190.28	40,140,198.19	52.5	2,107,124,286.14	35.8	1,437,296,266.22	0.302480	12,141,609.18
				Net Salvage:	-5%					607,080.46
									0.317604	12,748,689.64

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Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Average Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)	(\$)	(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Big Bend Common Facilities: Structures &amp; Improvements</b>										
1998	35	0.5	0.00	0.00	33.4	0.00	32.9	0.00	0.014957	0.00
1997	35	1.5	79,816.35	53,210.90	33.8	1,798,528.42	32.3	1,718,712.07	0.044414	2,363.31
1996	35	2.5	293,121.08	117,248.43	34.1	3,998,171.46	31.6	3,705,050.39	0.073399	8,605.92
1995	35	3.5	624,537.62	178,439.32	34.3	6,120,468.68	30.8	5,495,931.06	0.102055	18,210.62
1994	35	4.5	116,244.86	25,832.19	34.5	891,210.56	30.0	774,965.70	0.130499	3,371.07
1993	35	5.5	502,395.63	91,344.66	34.6	3,160,525.24	29.1	2,658,129.61	0.158824	14,507.72
1992	35	6.5	0.00	0.00	34.7	0.00	28.2	0.00	0.187096	0.00
1991	35	7.5	927,710.70	123,694.76	34.8	4,304,577.65	27.3	3,376,866.95	0.215365	26,639.52
1990	35	8.5	279,854.43	32,924.05	34.9	1,149,049.35	26.4	869,194.92	0.243662	8,022.34
1989	35	9.5	151,568.23	15,954.55	34.9	556,813.80	25.4	405,245.57	0.272001	4,339.65
1988	35	10.5	0.00	0.00	35.0	0.00	24.5	0.00	0.300389	0.00
1987	35	11.5	250,359.83	21,770.42	35.0	761,964.70	23.5	511,604.87	0.328823	7,158.61
1986	35	12.5	669,814.13	53,585.13	35.0	1,875,479.55	22.5	1,205,665.43	0.357291	19,145.48
1985	35	13.5	5,023,373.22	372,101.72	35.0	13,023,560.20	21.5	8,000,186.98	0.385781	143,549.77
1984	35	14.5	1,697,574.45	117,074.10	35.0	4,097,593.50	20.5	2,400,019.05	0.414278	48,501.22
1983	35	15.5	0.00	0.00	35.0	0.00	19.5	0.00	0.442747	0.00
1982	35	16.5	0.00	0.00	35.0	0.00	18.5	0.00	0.471146	0.00
1981	35	17.5	0.00	0.00	35.0	0.00	17.5	0.00	0.499413	0.00
1980	35	18.5	0.00	0.00	35.0	0.00	16.5	0.00	0.527463	0.00
1979	35	19.5	18,910.71	969.78	35.0	33,942.30	15.6	15,128.57	0.555190	538.41
1978	35	20.5	496,633.00	24,226.00	35.0	847,910.00	14.6	353,699.60	0.582464	14,110.77
1977	35	21.5	0.00	0.00	35.0	0.00	13.7	0.00	0.609138	0.00
1976	35	22.5	9,322,969.05	414,354.18	35.0	14,502,396.30	12.8	5,303,733.50	0.635063	263,141.01
1975	35	23.5	0.00	0.00	35.0	0.00	11.9	0.00	0.660085	0.00
1974	35	24.5	0.00	0.00	35.0	0.00	11.1	0.00	0.684065	0.00
1973	35	25.5	162,511.50	6,373.00	35.0	223,055.00	10.3	65,641.90	0.706854	4,504.78
1972	35	26.5	0.00	0.00	35.0	0.00	9.5	0.00	0.728387	0.00
1971	35	27.5	0.00	0.00	35.0	0.00	8.8	0.00	0.748608	0.00
1970	35	28.5	7,088,018.40	248,702.40	35.0	8,704,584.00	8.1	2,014,489.44	0.767492	190,877.10
		14.6	27,705,413.17	1,897,805.59	34.8	66,049,830.69	20.5	38,874,265.60	0.409730	777,587.34
				Net Salvage:	-5%					38,879.37
									0.430216	816,466.71



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Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Structures &amp; Improvements</b>										
1998	50	0.5	0.00	0.00	47.5	0.00	46.6	0.00	0.010626	0.00
1997	50	1.5	0.00	0.00	47.5	0.00	46.5	0.00	0.031243	0.00
1996	50	2.5	152,519,925.50	61,007,970.20	47.5	2,897,878,584.50	46.5	2,836,870,614.30	0.051057	3,114,883.93
		2.5	152,519,925.50	61,007,970.20	47.5	2,897,878,584.50	46.5	2,836,870,614.30	0.020423	3,114,883.93
					Net Salvage:	-10%				311,488.39
									0.022465	3,426,372.33

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Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Structures &amp; Improvements</b>										
1998	40	0.5	0.00	0.00	37.9	0.00	36.9	0.00	0.013355	0.00
1997	40	1.5	0.00	0.00	37.9	0.00	36.9	0.00	0.039057	0.00
1996	40	2.5	102,418,352.70	40,967,341.08	37.9	1,552,662,226.93	36.9	1,511,694,885.85	0.063500	2,601,426.16
		2.5	102,418,352.70	40,967,341.08	37.9	1,552,662,226.93	36.9	1,511,694,885.85	0.025400	2,601,426.16
				Net Salvage:		-10%				260,142.62
									0.027940	2,861,568.77

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and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Structures &amp; Improvements</b>										
1998	25	0.5	0.00	0.00	25.0	0.00	24.5	0.00	0.020000	0.00
1997	25	1.5	0.00	0.00	25.0	0.00	23.5	0.00	0.060000	0.00
1996	25	2.5	10,791,439.93	4,316,575.97	25.0	107,914,399.25	22.5	97,122,959.33	0.100000	431,657.60
		2.5	10,791,439.93	4,316,575.97	25.0	107,914,399.25	22.5	97,122,959.33	0.040000	431,657.60
				Net Salvage:		-10%				43,165.76
									0.044000	474,823.36

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and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Structures &amp; Improvements</b>										
1998	20	0.5	0.00	0.00	20.0	0.00	19.5	0.00	0.025000	0.00
1997	20	1.5	0.00	0.00	20.0	0.00	18.5	0.00	0.075000	0.00
1996	20	2.5	2,901,582.40	1,160,632.96	20.0	23,212,659.20	17.5	20,311,076.80	0.125000	145,079.12
		2.5	2,901,582.40	1,160,632.96	20.0	23,212,659.20	17.5	20,311,076.80	0.050000	145,079.12
					Net Salvage:	-10%				14,507.91
									0.055000	159,587.03

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Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Structures &amp; Improvements</b>										
1998	5	0.5	0.00	0.00	5.0	0.00	4.5	0.00	0.100000	0.00
1997	5	1.5	0.00	0.00	4.5	0.00	3.5	0.00	0.300000	0.00
1996	5	2.5	8,146,651.63	3,258,660.65	3.5	11,405,312.28	2.5	8,146,651.63	0.500000	1,629,330.33
		2.5	8,146,651.63	3,258,660.65	3.5	11,405,312.28	2.5	8,146,651.63	0.200000	1,629,330.33
				Net Salvage:	-10%					162,933.03
									0.220000	1,792,263.36

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Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Boiler Plant Equipment</b>										
1998	40	0.5	4,006,990.91	8,013,981.82	36.6	293,311,734.61	35.6	285,297,752.79	0.013832	110,849.40
1997	40	1.5	2,943,735.29	1,962,490.19	36.6	71,827,140.95	35.5	69,668,401.75	0.040501	79,482.82
1996	40	2.5	274,604,364.33	109,841,745.73	36.6	4,020,207,893.72	35.4	3,888,397,798.84	0.065927	7,241,536.77
		2.3	281,555,090.52	119,818,217.74	36.6	4,385,346,769.28	35.4	4,243,363,953.38	0.026396	7,431,868.98
				Net Salvage:		-18%				1,337,736.42
									0.031147	8,769,605.40

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December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Boiler Plant Equipment</b>										
1998	25	0.5	1,962,375.05	3,924,750.10	25.0	98,118,752.50	24.5	96,156,377.45	0.020000	78,495.00
1997	25	1.5	1,615,681.05	1,077,120.70	25.0	26,928,017.50	23.5	25,312,336.45	0.060000	64,627.24
1996	25	2.5	176,623,275.25	70,649,310.10	25.0	1,766,232,752.50	22.5	1,589,609,477.25	0.100000	7,064,931.01
		2.4	180,201,331.35	75,651,180.90	25.0	1,891,279,522.50	22.6	1,711,078,191.15	0.040000	7,208,053.25
				Net Salvage:	-18%					1,297,449.59
									0.047200	8,505,502.84

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December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Boiler Plant Equipment</b>										
1998	20	0.5	300,584.96	601,169.92	20.0	12,023,398.40	19.5	11,722,813.44	0.025000	15,029.25
1997	20	1.5	234,501.60	156,334.40	20.0	3,126,688.00	18.5	2,892,186.40	0.075000	11,725.08
1996	20	2.5	3,654,241.70	1,461,696.68	20.0	29,233,933.60	17.5	25,579,691.90	0.125000	182,712.09
		1.9	4,189,328.26	2,219,201.00	20.0	44,384,020.00	18.1	40,194,691.74	0.050000	209,466.41
				Net Salvage:		-18%				37,703.95
									0.059000	247,170.37

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December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Boiler Plant Equipment</b>										
1998	5	0.5	0.00	0.00	5.0	0.00	4.5	0.00	0.100000	0.00
1997	5	1.5	0.00	0.00	4.5	0.00	3.5	0.00	0.300000	0.00
1996	5	2.5	31,015,842.40	12,406,336.96	3.5	43,422,179.36	2.5	31,015,842.40	0.500000	6,203,168.48
		2.5	31,015,842.40	12,406,336.96	3.5	43,422,179.36	2.5	31,015,842.40	0.200000	6,203,168.48
				Net Salvage:	-18%					1,116,570.33
									0.236000	7,319,738.81

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age (yrs)	Average Age Weighted Dollars (\$)	Original Cost	Average Service Life (yrs)	Average Service Life Weighted Dollars (\$)	Average Remaining Life (yrs)	Remaining Life Weighted Dollars (\$)	Depreciation Reserve Ratio	Calculated Depreciation Reserve (\$)
<b>Polk Power Station Unit #1: Turbogenerator Units</b>										
1998	40	0.5	0.00	0.00	36.5	0.00	35.5	0.00	0.013875	0.00
1997	40	1.5	22,186.05	14,790.70	36.5	539,860.55	35.4	523,590.78	0.040631	600.96
1996	40	2.5	114,426,482.35	45,770,592.94	36.5	1,670,626,642.31	35.3	1,615,701,930.78	0.066146	3,027,541.64
		2.5	114,448,668.40	45,785,383.64	36.5	1,671,166,502.86	35.3	1,616,225,521.56	0.026459	3,028,142.60
					Net Salvage:	-11%				333,095.69
									0.029369	3,361,238.29

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and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Turbogenerator Units</b>										
1998	25	0.5	0.00	0.00	25.0	0.00	24.5	0.00	0.020000	0.00
1997	25	1.5	0.00	0.00	25.0	0.00	23.5	0.00	0.060000	0.00
1996	25	2.5	172,404,300.40	68,961,720.16	25.0	1,724,043,004.00	22.5	1,551,638,703.60	0.100000	6,896,172.02
		2.5	172,404,300.40	68,961,720.16	25.0	1,724,043,004.00	22.5	1,551,638,703.60	0.040000	6,896,172.02
					Net Salvage:	-11%				758,578.92
									0.044400	7,654,750.94

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Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Turbogenerator Units</b>										
1998	5	0.5	0.00	0.00	5.0	0.00	4.5	0.00	0.100000	0.00
1997	5	1.5	0.00	0.00	4.5	0.00	3.5	0.00	0.300000	0.00
1996	5	2.5	1,602,769.15	641,107.66	3.5	2,243,876.81	2.5	1,602,769.15	0.500000	320,553.83
		2.5	1,602,769.15	641,107.66	3.5	2,243,876.81	2.5	1,602,769.15	0.200000	320,553.83
					Net Salvage:	-11%				35,260.92
									0.222000	355,814.75

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age (yrs)	Average Age Weighted Dollars (\$)	Original Cost	Average Service Life (yrs)	Average Service Life Weighted Dollars (\$)	Average Remaining Life (yrs)	Remaining Life Weighted Dollars (\$)	Depreciation Reserve Ratio	Calculated Depreciation Reserve (\$)
<b>Polk Power Station Unit #1: Accessory Electric Equipment</b>										
1998	40	0.5	390.15	780.30	36.5	28,480.95	35.5	27,700.65	0.013875	10.83
1997	40	1.5	0.00	0.00	36.5	0.00	35.4	0.00	0.040631	0.00
1996	40	2.5	86,723,622.93	34,689,449.17	36.5	1,266,164,894.71	35.3	1,224,537,555.70	0.066146	2,294,568.30
		2.5	86,724,013.08	34,690,229.47	36.5	1,266,193,375.66	35.3	1,224,565,256.35	0.026458	2,294,579.13
					Net Salvage:	-4%				91,783.17
									0.027517	2,386,362.30

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Accessory Electric Equipment</b>										
1998	50	0.5	0.00	0.00	45.1	0.00	44.2	0.00	0.011188	0.00
1997	50	1.5	0.00	0.00	45.1	0.00	44.0	0.00	0.032942	0.00
1996	50	2.5	1,813,196.93	725,278.77	45.1	32,710,072.53	43.9	31,839,738.00	0.053905	39,096.15
		2.5	1,813,196.93	725,278.77	45.1	32,710,072.53	43.9	31,839,738.00	0.021562	39,096.15
				Net Salvage:	-4%					1,563.85
									0.022424	40,660.00

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Accessory Electric Equipment</b>										
1998	25	0.5	0.00	0.00	25.0	0.00	24.5	0.00	0.020000	0.00
1997	25	1.5	53,231.34	35,487.56	25.0	887,189.00	23.5	833,957.66	0.060000	2,129.25
1996	25	2.5	34,920,936.15	13,968,374.46	25.0	349,209,361.50	22.5	314,288,425.35	0.100000	1,396,837.45
		2.5	34,974,167.49	14,003,862.02	25.0	350,096,550.50	22.5	315,122,383.01	0.040000	1,398,966.70
				Net Salvage:	-4%					55,958.67
									0.041600	1,454,925.37

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Accessory Electric Equipment</b>										
1998	20	0.5	0.00	0.00	20.0	0.00	19.5	0.00	0.025000	0.00
1997	20	1.5	0.00	0.00	20.0	0.00	18.5	0.00	0.075000	0.00
1996	20	2.5	21,374,067.38	8,549,626.95	20.0	170,992,539.00	17.5	149,618,471.63	0.125000	1,068,703.37
		2.5	21,374,067.38	8,549,626.95	20.0	170,992,539.00	17.5	149,618,471.63	0.050000	1,068,703.37
				Net Salvage:		-4%				42,748.13
									0.052000	1,111,451.50

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Accessory Electric Equipment</b>										
1998	5	0.5	0.00	0.00	5.0	0.00	4.5	0.00	0.100000	0.00
1997	5	1.5	0.00	0.00	4.5	0.00	3.5	0.00	0.300000	0.00
1996	5	2.5	1,544,195.50	617,678.20	3.5	2,161,873.70	2.5	1,544,195.50	0.500000	308,839.10
		2.5	1,544,195.50	617,678.20	3.5	2,161,873.70	2.5	1,544,195.50	0.200000	308,839.10
				Net Salvage:	-4%					12,353.56
									0.208000	321,192.66

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Misc. Power Plant Equipment</b>										
1998	50	0.5	0.00	0.00	44.1	0.00	43.2	0.00	0.011430	0.00
1997	50	1.5	0.00	0.00	44.1	0.00	43.0	0.00	0.033674	0.00
1996	50	2.5	1,132,604.33	453,041.73	44.1	19,979,140.29	42.8	19,390,186.04	0.055136	24,978.91
		2.5	1,132,604.33	453,041.73	44.1	19,979,140.29	42.8	19,390,186.04	0.022054	24,978.91
				Net Salvage:	-10%					2,497.89
									0.024260	27,476.80

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life (yrs)	Average Service Life Weighted Dollars	Average Remaining Life (yrs)	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Misc. Power Plant Equipment</b>										
1998	40	0.5	0.00	0.00	35.9	0.00	35.0	0.00	0.014094	0.00
1997	40	1.5	0.00	0.00	35.9	0.00	34.8	0.00	0.041297	0.00
1996	40	2.5	10,540,646.08	4,216,258.43	35.9	151,363,677.64	34.7	146,304,167.52	0.067268	283,619.27
		2.5	10,540,646.08	4,216,258.43	35.9	151,363,677.64	34.7	146,304,167.52	0.026907	283,619.27
					Net Salvage:	-10%				28,361.93
									0.029598	311,981.20

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Misc. Power Plant Equipment</b>										
1998	25	0.5	0.00	0.00	25.0	0.00	24.5	0.00	0.020000	0.00
1997	25	1.5	0.00	0.00	25.0	0.00	23.5	0.00	0.060000	0.00
1996	25	2.5	1,036,931.98	414,772.79	25.0	10,369,319.75	22.5	9,332,387.78	0.100000	41,477.28
		2.5	1,036,931.98	414,772.79	25.0	10,369,319.75	22.5	9,332,387.78	0.040000	41,477.28
				Net Salvage:		-10%				4,147.73
									0.044000	45,625.01

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Remaining Life Weighted Dollars	Depreciation Reserve Ratio	Calculated Depreciation Reserve
		(yrs)	(\$)		(yrs)	(\$)	(yrs)	(\$)		(\$)
<b>Polk Power Station Unit #1: Misc. Power Plant Equipment</b>										
1998	20	0.5	60,064.97	120,129.94	20.0	2,402,598.80	19.5	2,342,533.83	0.025000	3,003.25
1997	20	1.5	0.00	0.00	20.0	0.00	18.5	0.00	0.075000	0.00
1996	20	2.5	109,083.05	43,633.22	20.0	872,664.40	17.5	763,581.35	0.125000	5,454.15
		1.0	169,148.02	163,763.16	20.0	3,275,263.20	19.0	3,106,115.18	0.050000	8,457.40
						Net Salvage: -10%				845.74
									0.055000	9,303.14

TAMPA ELECTRIC COMPANY  
Determination of Average Remaining Life  
and Average Service Life at  
December 31, 1998

Year Installed	Life	Age (yrs)	Average Age Weighted Dollars (\$)	Original Cost	Average Service Life (yrs)	Average Service Life Weighted Dollars (\$)	Average Remaining Life (yrs)	Remaining Life Weighted Dollars (\$)	Depreciation Reserve Ratio	Calculated Depreciation Reserve (\$)
<b>Polk Power Station Unit #1: Misc. Power Plant Equipment</b>										
1998	5	0.5	0.00	0.00	5.0	0.00	4.5	0.00	0.100000	0.00
1997	5	1.5	0.00	0.00	4.5	0.00	3.5	0.00	0.300000	0.00
1996	5	2.5	954,465.68	381,786.27	3.5	1,336,251.95	2.5	954,465.68	0.500000	190,893.14
		2.5	954,465.68	381,786.27	3.5	1,336,251.95	2.5	954,465.68	0.200000	190,893.14
				Net Salvage:	-10%					19,089.31
									0.220000	209,982.45

**Tampa Electric Company  
Determination of Average Remaining Life at  
December 31, 1998**

**Polk Power Station Unit No. 2**

Life Category	Age At 12/31/98	Average Age Weighted Dollars	Original Cost	Average Service Life	Average Service Life Weighted Dollars	Average Remaining Life	Average Remaining Life Weighted Dollars	Calculated Depreciation Reserve	Depreciation Reserve Ratio
<b>343 - Turbogenerator Units</b>									
40 Year Life	0.5	8,362,891.00	16,725,782.00	37.8	442,481.01	37.3	16,504,541.50	0.00	0.000000
20 Year Life	0.5	17,541,033.00	35,082,066.00	20.0	1,754,103.30	19.5	34,205,014.35	0.00	0.000000
5 Year Life	0.5	394,476.00	788,952.00	5.0	157,790.40	4.5	710,056.80	0.00	0.000000
	0.5	26,298,400.00	52,596,800.00	22.3	2,354,374.71	21.8	51,419,612.65	0.00	0.000000