State of Florida Hublic Serbice Commission CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850 -M-E-M-O-R-A-N-D-U-I DATE: NOVEMBER 7, 2001 TO: DIRECTOR, DIVISION OF THE COMMISSION CLERK & ADMINISTRATIVE SERVICES (BAYÓ) P573 DMAS FROM: DIVISION OF ECONOMIC REGULATION (P. LEE, D. DRAPER /. LESTER)  $(^{\circ})$ ١a DIVISION OF LEGAL SERVICES (ELIAS) DIVISION OF SAFETY & ELECTRIC RELIABILITY (COLSON RE: DOCKET NO. 010031-EI - 2000 FOSSIL DISMANTLEMENT COST STUDY BY FLORIDA POWER CORPORATION. 11/19/01 - REGULAR AGENDA - PROPOSED AGENCY ACTION -AGENDA: INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\ECR\WP\010031.RCM

#### CASE BACKGROUND

By Order No. 24741, issued July 1, 1991, in Docket No. 890186-EI, the Commission established the methodology for accruing the costs of dismantlement for fossil fueled production plants. The methodology is dependent on three factors: estimated base costs for dismantlement, projected inflation, and a contingency factor. Also, the Order required electric companies to file site specific dismantlement studies at least once every four years in connection with their comprehensive depreciation studies.

The last fossil dismantlement provision established for Florida Power Corporation (FPC or company) was by Order No. PSC-94-1331-FOF-EI, issued October 27, 1994, in Docket No. 931142-EI. Subsequently, by Order No. PSC-97-0840-S-EI, issued July 14, 1997, in Docket No. 970261-EI, the Commission approved a Stipulation between Florida Power Corporation (FPC or company), the Office of

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EPOP-COMMISSION CLERK

Public Counsel, the Florida Industrial Power Users Group, the Office of the Attorney General, Senator Charlie Crist, the Florida Consumers Action Network, the Lake Dora Harbour Homeowners Association, Inc., and the American Association of Retired Persons regarding the nuclear outage at Crystal River Unit No. 3 (CR3). As part of the terms and conditions set forth in the Stipulation, FPC's annual fossil dismantlement provision of \$17 million, approved by Order No. PSC-94-1331-FOF-EI, was suspended for the four year period of the Stipulation (July 1997 - June 2001). In return, the amount of the suspended dismantlement accruals were to be applied toward the amortization of the regulatory asset established for the unrecovered replacement fuel costs associated with the extended outage at CR3. In the event the regulatory asset was fully amortized before the end of the four year period, the suspended fossil dismantlement accrual amounts were to be applied toward the amortization of the Tiger Bay Regulatory Asset established in Docket No. 970096-EQ.

The Stipulation further deferred FPC's next fossil dismantlement study from November 1997, until the end of the amortization period and base rate freeze. In order for a new accrual to be approved for implementation on July 1, 2001, the Commission directed FPC to file its dismantlement study by January 1, 2001.

Also, the Stipulation prohibited any reserve deficiency attributed to the estimated \$68 million dismantlement accrual suspension from being included in any future base rate proceeding initiated by FPC, while permitting the inclusion for surveillance purposes. The mechanics to be used in determining the existence of any reserve deficiency would be addressed in the company's next filed dismantlement study in 2001.

In accordance with the above referenced order, FPC filed its fossil dismantlement study on January 2, 2001. Staff has completed its review and presents its recommendation herein.

## DISCUSSION OF ISSUES

**ISSUE 1**: Should FPC's currently approved annual dismantlement provision be revised?

**RECOMMENDATION:** Yes. This dismantlement study indicates a need to revise the annual dismantlement provision to recognize updated base cost estimates of dismantlement, inflation, and contingency. Staff recommends that FPC's annual dismantlement accruals be revised, effective July 1, 2001. (P. LEE)

**STAFF ANALYSIS:** In accordance with the Stipulation approved by Order No. PSC-97-0840-S-EI, FPC's annual dismantlement provision was suspended for a four year period ending June 30, 2001. This current study represents an update of base cost estimates, inflation, and contingency and indicates a need to revise the annual accruals. A July 1, 2001, date represents the earliest practical date the dismantlement provision can be revised, in line with the requirements of the Stipulation.

**ISSUE 2:** Should any reserve allocations be made?

**RECOMMENDATION:** Yes. The staff recommended reserve allocations are shown on Attachment A, page 7. These allocations are reflective of FPC's recommended allocation method to correct identified reserve imbalances based on current dismantlement estimates updated to reflect the latest Data Resources, Inc. (DRI) inflation forecasts. (P. LEE)

**STAFF ANALYSIS:** Based on current dismantlement cost estimates, FPC has identified certain plants with apparent reserve surpluses. Accordingly, FPC has recommended these surpluses be transferred to plants with shorter remaining periods of service in which to accumulate the dismantlement provision. The reserve for Avon Park represents the amount remaining after the 1996 completion of the dismantlement and demolition activities at Units 1 and 2 and the common facilities. This surplus can be used to offset dismantlement cost estimates at other plants. Staff finds the company's recommended approach acceptable but has used the most current inflation indices in its allocation shown on Attachment A.

**ISSUE 3:** What is the appropriate annual provision for dismantlement?

**RECOMMENDATION:** The appropriate annual accrual is \$8,813,128 and represents a decrease of about \$8.2 million from the 1994 approved annual accrual. Attachment B, page 8, shows the staff recommended dismantlement accruals. These accruals reflect current estimates of dismantlement costs on a site-specific basis using the latest DRI inflation forecasts and a 15% contingency factor. (D. DRAPER, LESTER, P. LEE)

**STAFF ANALYSIS:** FPC's last dismantlement study was filed in 1993, in which an annual accrual of \$17,023,202 million was approved by Order No. PSC-94-1331-FOF-EI. Subsequently, by Order No. PSC-97-0840-S-EI, FPC's annual dismantlement accruals were suspended during the period July 1997 - June 2001.

In this current study, FPC has proposed a levelized annual fossil dismantlement accrual from 2001-2005 of \$7,702,804. The accrual is based on FPC's current estimates of dismantlement costs, escalated to future costs through the time of dismantlement. The future costs less amounts recovered to date have been discounted in a manner that accrues the costs over the remaining life span of each plant. The calculation of the accrual is based on the methodology for dismantlement established by Order No. 24741, issued on July 1, 1991, in Docket No. 890186-EI. The inflation factors FPC used were based on the Winter 2000 issue of <u>The U.S.</u> Economy published by Standard & Poor's DRI.

FPC's site-specific studies reflect updated base cost dismantlement estimates of \$151.1 million, representing a decrease of about 23% from the 1993 estimates of \$196.8 million. The major factors contributing to the reduction in cost estimates are: 1) a reduction of labor hours/productivity by about 25%; 2) a reduction of indirect costs associated with dismantlement as a result of productivity increases; 3) a reduction in the time duration required for the dismantlement process based on the company's experience at Avon Park; 4) a reduction in the contingency from 20% to 15%; 5) a change in the dismantlement scope to include new plants and facilities (3 Combustion Turbines at Intercession City, Hines Unit 1 and Unit 2, and Tiger Bay) and to eliminate those plants where the demolition and dismantlement has been completed (Avon Park Units 1 and 2, and Turner Units 3 and 4; and, 6) changes in inflation rates and capital recovery dates. The updated base cost estimates reflect productivity increases that recognize FPC's demolition experience at Avon Park Steam site. Such increases translate into decreases in labor costs as well as decreases in the overall duration of the dismantlement process. The company believes these reductions are appropriate since they recognize company specific experience rather than simply relying on productivity rates based on a consultant's experience that may or may not be relevant. Another reduction in the base cost estimates is due to the assumed steel scrap value to reflect recent market conditions in Florida.

FPC's current approved dismantlement accruals are based on cost estimates assuming a 20% contingency factor to cover uncertainty in the dismantlement cost estimates. In this current study, FPC proposes use of a 15% contingency factor consisting of a 5% pricing contingency and a 10% scope omission contingency. The pricing contingency provides a level of confidence that the estimates will not overrun due to a pricing error. The scope omission contingency gives consideration to the conceptual nature of the base cost estimates and the difficulty in obtaining quantity and weight records. This factor also includes a recognition of hazardous waste environmental assessments that can only be performed at the time of dismantlement. FPC's 15% contingency factor is in line with contingency factors underlying currently approved annual dismantlement provisions for other electric companies in the State.

FPC's study assumes dismantlement will begin approximately five years after the plant is retired. This allows the company to research alternative power sources or repowering options utilizing existing plant equipment, existing plant site, or some combination of both while taking advantage of already approved site permitting. Notwithstanding this, it must be mentioned that the Turner steam units were retired and ceased operation in 1994. There are no current dismantlement activities underway at the site and the company states there are no near term plans to begin dismantlement. However, the amount necessary to dismantle the plant has been accrued and therefore no additional recovery is needed.

National industry experience with the dismantlement of fossil fueled generating plants is limited. Experience with estimating the base costs is even more limited. With the passage of time, estimating the costs of dismantlement likely will become more accurate. This represents only the second round of reviews for FPC due to its Stipulation. Notwithstanding, as reviews progress, DOCKET NO. 010031-EI DATE: November 7, 2001

staff and the companies continue to refine the elements that go into the calculation of the base cost estimates of dismantlement and the calculation of the annual accrual level.

FPC's originally filed dismantlement study indicated revised annual dismantlement accruals based on inflation factors based on the Winter 2000 issue of <u>The U.S. Economy</u> published by Standard & Poor's DRI. Staff updated the inflation factors to reflect the latest available data from the Summer 2001 issue of <u>The U.S.</u> <u>Economy</u>. The resulting recommended levelized annual accrual based on FPC's site-specific dismantlement study cost estimates, a 15% contingency, the most recent available DRI forecasts, and the restated dismantlement reserve position recommended in Issue 2, is \$8,813,128.

#### **ISSUE 4:** Should this docket be closed?

**<u>RECOMMENDATION</u>**: If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (ELIAS)

**STAFF ANALYSIS:** At the conclusion of the protest period, if no protest is filed, this docket should be closed upon the issuance of a consummating order.

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## Attachment A

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| Plant                    | Accumulated<br>Reserve<br>(\$) | Future Dollars<br>To Dismantle<br>(\$) | Recommended<br>Transfer<br>(\$) | Restated<br>Reserve<br>(\$) |
|--------------------------|--------------------------------|--|---------------------------------|-----------------------------|
| Turner Steam             | 8,555,625                      | 7,374,949                              | (1,180,976)                     | 7,374,649                   |
| Higgins Steam            | 11,372,579                     | 5,493,240                              | (5,879,339)                     | 5,493,240                   |
| Port St. Joe Gas Turbine | 312,387                        | 249,535                                | (62,852)                        | 249,535                     |
| Avon Park Steam          | 4,121,717                      | 0                                      | (4,121,717)                     | 0                           |
| Suwannee River Steam     | 9,584,023                      | 13,945,261                             | 4,361,238                       | 13,945,261                  |
| Higgins Gas Turbine      | 553,539                        | 1,071,115                              | 517,576                         | 1,071,115                   |
| Rio Pinar Gas Turbine    | 384,339                        | 722,413                                | 338,074                         | 722,413                     |
| Turner Gas Turbine 1&2   | 0                              | 214,055                                | 214,055                         | 214,055                     |
| Avon Park Gas Turbine    | 287,419                        | 684,278                                | 396,859                         | 684,278                     |
| Bartow Gas               | 621,977                        | 2,224,172                              | 1,602,195                       | 2,224,172                   |
| Bartow Steam             | 16,055,262                     | 31,325,264                             | 3,814,887                       | 19,870,149                  |
| Total                    | 51,848,867                     | 63,304,282                             | 0                               | 51,848,867                  |

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# Attachment B

| Plant                            | OMPARISON OF DISMANT<br>1993 Approved<br>Annual<br>Accrual<br>(\$) | Company Proposed<br>Annual Provision<br>(\$) | Staff<br>Recommended<br>Annual<br>Provision<br>(\$) | Change in<br>Annual<br>Dismantlement<br>Provision<br>(\$) |
|----------------------------------|--|--|---|---|
| Crystal River 1&2                | 3,293,082  | 1,991,908                                    | 2,297,071   | (996,011)   |
| Crystal River Cooling Pond       | 268,369  | 297,942                                      | 315,522   | 47,153  |
| Crystal River Fish Hatchery      | 95,227   | 102,744                                      | 108,763   | 13,536  |
| Crystal River 4&5                | 2,010,715  | 1,209,656                                    | 1,397,432   | (613,283)   |
| Crystal River Common             | 587,834  | 495,968                                      | \$41,395  | (46,439)  |
| Anclote Steam                    | 1,182,758  | 725,907                                      | 816,300   | (366,458)   |
| Bartow Steam                     | 2,712,786  | 997,713                                      | 1,277,949   | (1,434,837)   |
| Bartow Gas Turbine               | 100,556  | 0  | 0   | (100,556)   |
| Pipeline                         | 653,047  | 468,832                                      | 504,183   | (148,864)   |
| Hines Unit 1                     | 0  | 148,766                                      | 158,423   | 158,423   |
| Avon Park Steam                  | 659,365  | o  | 0   | (659,365)   |
| Avon Park Gas Turbine            | 32,517   | O  | 0   | (32,517)  |
| Turner Steam                     | 733,430  | 0  | 0   | (733,430)   |
| Tiger Bay                        | 0  | 106,045                                      | 114,463   | 114,463   |
| Turner Repowering                | 148,181  | 0  | O   | (148,181)   |
| Turner Gas Turbine 1&2           | 23,022   | 0  | 0   | (23,022)  |
| Turner Gas Turbine 3&4           | 71,912   | 59,025                                       | 64,658  | (7,254)   |
| Higgins Steam                    | 504,607  | 0  | ٥   | (504,607)   |
| Intercession City P11            | 0  | 12,077                                       | 13,155  | 13,155  |
| Higgins Repowering               | 485,647  | 0  | ٥   | (485,647)   |
| Higgins Gas Turbine              | 61,898   | 0  | ٥   | (61,898)  |
| Suwannee Steam                   | 1,589,874  | 0  | 0   | (1,589,874)   |
| Suwannee Gas Turbine             | 38,041   | 37,369                                       | 42,462  | 4,421   |
| Bayboro Gas Turbine              | 322,977  | 81,798                                       | 89,630  | (233,347)   |
| Debary Gas Turbine 1-6           | 42,396   | 32,335                                       | 37,966  | (4,430)   |
| Debary Gas Turbine 7-10          | 489,543  | 313,257                                      | 347,466   | (142,077)   |
| Intercession City Gas Turine 1-6 | 65,368   | 37,743                                       | 42,234  | (23,134)  |
| Intercession City Gas Turbine 7- | 385,993  | 84,298                                       | 95,977  | (290,016)   |
| St. Joe Gas Turbine              | 128,770  | o  | 0   | (128,770)   |
| Rio Pinar Gas                    | 132,655  | 0  | o   | (132,655)   |
| University of Florida Gas        | 200,639  | 106,031                                      | 114,959   | (85,680)  |
| Intercession City P12-14         | 0  | 205,635                                      | 230,514   | 230,514   |
| Hines Unit 2                     | Q  |  | 202.606   | 202.606   |
| Total Annual Dismantlement       | 17,023,202   | 7,702,804                                    | 8,813,128   | (8,208,081)   |

COMPARISON OF DISMANTLEMENT ANNUAL PROVISION