P.O. Box 029100, Miami, FL 33102

ORIGINAL

FPL

December 12, 2005

Mr. Timothy Devlin
Director, Division of Economic Regulation
Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

050045-EI

Re: 2005 Nuclear Decommissioning Study

Dear Mr. Devlin:

In compliance with Rule 25-6.04365 (Rule), Florida Administrative Code, FPL has prepared an updated study concerning the decommissioning of its nuclear generation units. This study is being furnished to the Commission as agreed to in the Stipulation and Settlement Agreement and Order No. PSC-05-0902-S-EI, dated September 14, 2005 approving that agreement. FPL is submitting the attached informational filing of its Nuclear Decommissioning Study in compliance with the following provision of that Order:

> "Pursuant to Paragraph 11, the parties agree that FPL will file a nuclear decommissioning study on or before December 12, 2005, but the study shall have no impact on FPL's base rates or charges or the terms of the Stipulation and Settlement. The parties clarified that the filing of this study is intended only for informational purposes and that no Commission action on the study is contemplated."

CMP ____
COM ____
CTR ____
ECR 1
GCL ____
OPC ____
RCA ____
SCR ____
SGA ____
SEC 1
OTH + cover ltr.

The study relates to future events and includes numerous assumptions regarding these future events such as the rate of burial cost escalation and fund earnings assumptions. Actual events may differ from the assumptions used in the study resulting in outcomes different than reflected in the study. FPL believes the assumptions used, which are discussed in greater detail in the study, support the decision agreed to in the Stipulation and Settlement Agreement to suspend the decommissioning accrual for the term of the agreement.

In addition, as required by the Commission in Order No. PSC-02-0055-PAA-EI, FPL has updated its estimates for Nuclear Fuel Last Core and End of Life M & S Inventory as part of this study. The results of the updated estimates will be reflected in FPL's accounting effective January 1, 2006.

If you have any questions, please contact me at (305) 552-2358.

Sincerely,

H. Antonio Cuba
Director, Regulatory and Tax Accounting

(Turkey Point)
11591-05

(St. Lucie)

cc: W.G. Walker, III
Wade Litchfield
Anne M. Grealy
Bill Feaster
K.M. Davis

050045-EI

FLORIDA POWER & LIGHT COMPANY

2005 DECOMMISSIONING STUDY

ST. LUCIE NUCLEAR UNIT
NOS. 1 & 2

December 2005

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units

TABLE OF CONTENTS

Section Numbers:

SECTION 1

EXECUTIVE SUMMARY

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
Executive Summary

By Order No.PSC-05-0902-S-EI, issued September 14, 2005 in Docket No. 050045-EI, In re: Petition for rate increase by Florida Power & Light Company, the PSC approved a Stipulation and Settlement. Among other things the Stipulation and Settlement suspended FPL's nuclear decommissioning accruals effective September 1, 2005, and at least through the minimum term of the Stipulation and Agreement - January 1, 2006 through December 31, 2009 (Paragraph 11 of Stipulation and Agreement). On page 5 of Order No. PSC-05-0902-S-EI the Commission made the following comment: "Pursuant to Paragraph 11, the parties agree that FPL will file a nuclear decommissioning study on or before December 12, 2005, but the study shall have no impact on FPL's base rates or charges or the terms of the Stipulation and Settlement. The parties clarified that the filing of this study is intended only for informational purposes and that no Commission action on the study is contemplated."

This 2005 Nuclear Decommissioning Study is being made in compliance with Order No. PSC-05-0902-S-EI.

Background Information

By order Nos. 10987 and 12356, entered in Docket No. 810100-EU on July 13, 1982 and August 12, 1983, respectively, the Florida Public Service Commission (FPSC) concluded its investigation concerning the accounting for and recovery of the costs of decommissioning nuclear units. In Docket No. 810100-EU, the FPSC concluded, among other matters, that: decommissioning costs should be accrued in equal annual amounts; decommissioning costs should be accounted for separately; and decommissioning costs should be reviewed and; if necessary, changed no less often than every five years.

By Order No. 21928, entered in Docket No. 870098-EI on September 21, 1989, the FPSC considered the petitions by Florida Power and Light Company (FPL) for an increase in the accrual of nuclear decommissioning costs for the Turkey Point and St. Lucie units. Based upon its decisions regarding decommissioning methodology, the contingency allowance, escalation rates and an assumed fund earnings rate, the FPSC approved an annual accrual and associated jurisdictional revenue requirements for each of FPL's nuclear units. Order No. 21928 also provided that the approved accrual would be subject to subsequent review every five years.

By Order Nos. PSC-95-1531-FOF-EI and PSC-95-1531A-FOF-EI, entered in Docket No. 941350-EI on December 12, 1995 and December 19, 1995 respectively, the FPSC considered the petitions by FPL for an increase in the accrual of nuclear decommissioning costs for the Turkey Point and St. Lucie units. Based upon its decisions regarding decommissioning methodology, including assumptions regarding

extended on-site fuel storage, the contingency allowance, escalation rates and an assumed fund earnings rate, the FPSC approved an annual accrual and funding requirements for each of FPL's nuclear units with an effective date of January 1, 1995.

By Order No. PSC-98-0027-FOF-EI, Docket No. 970410-EI issued January 5, 1998, the FPSC authorized FPL to record additional decommissioning expenses to correct historical reserve deficiencies. In addition, FPL was ordered to file updated nuclear decommissioning studies by October 1, 1998.

On October 1, 1998, in compliance with Order No. PSC-0027-FOF-EI, FPL filed in Docket No. 981246-EI, new decommissioning cost studies prepared by TLG Services Inc. (TLG), and updated funding and accrual analysis as of December 31, 1998. The Company also requested the approval of an annual expense accrual and establishment of an unfunded reserve associated with the estimated End-of-Life M&S Inventory values anticipated to remain at each nuclear site at the end of plant operations.

By Order No. PSC-99-0519-AS-EI issued March 17, 1999 in Docket No. 990067-EI, In Re: Petition for a full revenue requirements rate case for Florida Power & Light Company, the FPSC approved a Stipulation and Settlement (Stipulation). Among other things, the Stipulation terminated the continued amortization and booking of expenses and other cost recognition authorized in Docket No. 970410-EI and capped, for the settlement period ending April 2002, accruals for nuclear decommissioning at the levels last approved by the Commission in Order Nos. PSC-95-1531-FOF-EI and PSC-95-1531A-EI in Docket No. 941350-EI. The schedule (CASR) for Docket No. 981246-EI was subsequently revised and extended into the year 2001 .

By Order No PSC-01-0096-FOF-EI issued January 11, 2001, in Docket No 000543-EI, the Commission adopted Rule 25-6.04365 (Rule), Florida Administrative Code, relating to nuclear decommissioning. The Rule sets forth the information that must be presented in each decommissioning study filed with the Commission and requires each utility to file a site specific nuclear decommissioning study update at lease every five years from the submission date of the previous study unless otherwise required by the Commission

Due to the on-going nature of Docket No. 981246-EI, on January 22, 2001 FPL filed with the Commission updated and revised Decommissioning studies which included changes to reflect:

1. *Actual 2000 fund and reserve balances and actual inflation factors for years 1999 and 2000 applied to the Decommissioning Study prepared in 1998 dollars.*

2. *The most recent available forecasted indexes for calculating escalation and fund earnings used in the studies.*
3. *Updated assumptions regarding extended storage of spent fuel included in the decommissioning cost estimates (Rev. 1 October, 1999).*
4. *An updated estimate of End-of-Life Inventory values.*

By Order No.PSC-02-0055-PAA-EI, issued January 7, 2002 the Commission took action in the following FPL Dockets:

Docket No. 981246-EI

The Commission considered FPL's petition for a change in accrual of nuclear decommissioning costs for the Turkey Point and St. Lucie nuclear units. Based on its review and decisions regarding decommissioning methodology, including assumptions regarding extended on-site spent fuel storage, contingency allowance, escalation rates and fund earnings rate, the FPSC approved an annual accrual and funding requirement for each of FPL's nuclear units with an effective date of May 1, 2002. The Commission also approved the amortization expense associated with End-of-Life (EOL) M&S Inventories to be accounted for as a debit to nuclear maintenance expense and a credit to an unfunded Account 228 reserve. The Commission also stated that the status of EOL M&S inventory should be addressed in subsequent decommissioning studies so that the annual accrual can be revised, if necessary. FPL was ordered to file its next decommissioning cost study update no later than January 1, 2006.

Docket No. 991931-EI

The Commission also approved by Order No. PSC-02-0055-PAA-EI, the amortization of nuclear fuel Last Core costs as a base rate fuel expense with a credit to an unfunded Account 228 reserve. As with EOL M&S inventories the Commission ordered that the Last Core cost be addressed in subsequent decommissioning studies.

Docket No 991931-EI

Additionally, Order No. PSC-02-0055-PAA-EI approved the amortization of approximately $99 million of unfunded accumulated nuclear amortization expense previously recorded with Commission approval over the period January 1 1996 through April 13, 1999. The Commission ordered that the accumulated nuclear amortization balance be transferred to a regulatory liability account to be included

in working capital as a reduction to rate base. Additionally, the Commission ordered the balance of the regulatory asset be amortized over the remaining life (approximately 15 years) of the nuclear units as a credit to Account 407.4 Regulatory Credits. The Commission did not require the balance be addressed in subsequent decommission studies.

The information contained in this 2005 Decommissioning Study is presented in compliance with Rule 25-6.04365 and FPSC prior Orders as discussed above.

Spent Nuclear Fuel Storage

The Nuclear Waste Policy Act of 1982 assigns to the Federal Government responsibility to provide for the permanent disposal of spent nuclear fuel (SNF) and high-level radioactive waste (HLW), and committed the DOE to begin acceptance of SNF/HLW not later than January 31, 1998 under terms of its Standard Disposal Contracts with waste generators. The DOE has not yet provided for SNF storage and is not accepting SNF as committed to under the contract.

In Docket No. 941350-EI, and No. 981246-EI., the FPSC recognized the impact on the decommissioning process and the potential costs of on-site dry fuel storage resulting from the inability of the DOE to provide for the timely removal of SNF. In Order Nos. PSC-95-1531-FOF-EI. and PSC-02-0055-PAA-EI. the FPSC specifically approved the inclusion of costs associated with the dry storage of spent nuclear fuel following the end of each units operating license which were considered necessary to accommodate the timely decommissioning of each unit.

Consistent with the Commission's prior findings, this updated 2005 decommissioning study includes the costs relating to the construction, operation, and dismantlement of an on-site independent spent fuel storage installation (ISFSI) that is required to accommodate the timely decommissioning of the St. Lucie units. The potential cost impact of extended spent fuel storage that will exist subsequent to the license expiration of the St. Lucie nuclear units is presented in (Section 12) the 2005 Decommissioning Cost Analysis for the St. Lucie Plant and further discussed in the "General Discussion" section (Section 2) of this filing.

Decommissioning Cost Analysis

For purposes of this analysis, decommissioning is defined as the activity whereby nuclear facilities are removed safely from service and residual radioactivity is reduced to a level that permits release of the property for unrestricted use and termination of the operating license granted under Title 10 CFR Part 50. Decommissioning also includes

the dismantlement, disposal and site restoration activities associated with the non-contaminated portion of the facilities. These activities are not required for termination of the operating license, but are required to address other non-radiological requirements associated with the release of the site.

The Nuclear Regulatory Commission (NRC) has defined three acceptable decommissioning methods: Prompt Removal/Dismantling (DECON); Safe Storage/Deferred Decontamination (SAFSTOR); and Entombment (ENTOMB). The study utilizes the NRC terminology, but also includes the additional activities required to accommodate the non-contaminated portion of the facilities.

The DECON and SAFSTOR alternatives were both examined and are presented in the (TLG) Decommissioning Cost Analysis section (Section 12) of this filing. The ENTOMB alternative was not considered, because it is considered impractical for a facility which generates significant amounts of long-lived radioactive material due to neutron activation. FPL selected an integrated DECON decommissioning option for St. Lucie Units 1 and 2. Due to the difference in the operating license period of Units 1 and 2, this option entails approximately 7 years of dormancy (SAFSTOR) for Unit 1 followed by prompt dismantlement (DECON) of both Units 1 and 2. This method which is consistent with the integrated dismantlement method last approved by the FPSC in Docket No. 981246-EI, provides not only a lower cost, but also enables a sequence of events, which allows for a one-time mobilization of contractor personnel and equipment.

Funding Method

In Docket No. 810100-EU, Order No. 10987 issued July 13, 1982, the FPSC ordered FPL to establish a funded reserve. Beginning in 1983 FPL began making contributions, on a net of tax basis, to an externally funded reserve. In 1986, the Treasury Department issued temporary regulations under Internal Revenue Code Section 468A relating to the deductibility of contributions made to a qualified decommissioning fund. These regulations, which were finalized in March of 1988, provide for an annual election by the taxpayer to make tax-deductible contributions to a qualified nuclear decommissioning fund. Qualified nuclear decommissioning funds have been established by FPL for each of the four nuclear units. FPL elected to make contributions to the qualified funds, to the maximum allowed, for the years 1984 through 1987, 1992 through 2004 and for the year to date period ended August 31, 2005. The funding analysis presented in Sections G of this study indicates that no additional contributions to the qualified and nonqualified funds (subsequent to September 1, 2005) are projected to be required through the remainder of the funding period that ends with the expiration of the unit's operating license. Only the after-tax earnings of the trust fund investments are assumed to continue to be reinvested and accumulated in the respective funds.

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
Executive Summary

Materials and Supplies Inventories – amortization

The decommissioning cost estimates contained in the TLG Decommissioning Cost Analysis section of this study and in the funding analysis contained in Support Schedule G of this filing do not take into consideration the unrecovered value of any Materials and Supplies Inventories that will ultimately exist at the site following shut down of both units. Both FPL and this Commission have previously recognized that there will be a level of inventories that will remain at the end of life of Unit No. 2, the last unit to reach end of license, that must be recovered prior to the end of site operations. These inventories are unique and will have little value other than scrap value when the units are decommissioned. The Commission approved the amortization of EOL M&S Inventories in Docket No 981246-EI and in Order No PSC-002-0055-PAA-EI required FPL to submit updated information with its next decommissioning study. As such, FPL has included in Support Schedule E of this filing the annual expense accrual associated with updated estimates of End of Life inventory values and an amortization period consistent with the extended operation resulting from license extensions at each nuclear unit. The results of the updated estimates presented in Support Schedule E will be reflected in FPL's accounting for End of Life M&S Inventory effective January 1, 2006.

The annual expense/reserve accruals associated with End of Life Inventories are being accounted for, as directed by the Commission, in a separate (unfunded) sub-account of Reserve Account 228.

Nuclear Fuel Last Core – amortization

FPL recognizes that there will be unburned fuel that will remain in the fuel assemblies at the end of the last operating cycle of each nuclear unit when it ceases operation. In Docket No 981246-EI the Commission found that the cost associated with the Last Core were costs that should be considered a base rate future obligation and that amortization of this obligation over the remaining life span of each nuclear unit ratably allocates the costs to those customers receiving the benefit of the nuclear generation and avoids a burdensome expense at the time of unit shut down. In Order No. PSC-002-0055-PAA-EI the Commission authorized FPL to begin recording the amortization of estimated Last Core costs as a base rate fuel expense with a credit to a separate (unfunded) sub-account of Reserve Account 228. Additionally, the Commission directed the Company to address the costs associated with the Last Core in subsequent decommissioning studies so that the related annual accruals can be revised, if warranted. As such, FPL has included in Support Schedule F of this filing the annual expense accrual based on an updated estimate of end of life unburned nuclear fuel

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
Executive Summary

Last Core values and an amortization period consistent with the extended operation resulting from license extensions at each nuclear unit. The results of the updated estimates presented in Support Schedule F will be reflected in FPL's accounting for Nuclear Fuel Last Core Values effective January 1, 2006.

The annual expense/reserve accruals associated with End of Life Nuclear Fuel Last Core values are accounted for, as directed by the Commission, in a separate (unfunded) sub-account of Reserve Account 228.

Annual Accrual Requirements

FPL's current annual expense accrual requirements for St Lucie Nuclear Plant Decommissioning costs presented in this study support a zero accrual and funding requirement as of 12/31/05. The major assumptions used in our analysis are summarized at the end of this section. The decommissioning costs estimates, funding analysis, and supporting assumptions presented in this study were prepared in a manner consistent with prior Commission approved studies, methodologies and practices. The annual decommissioning accrual amount of $0.00, supported by this 2005 study confirms the prudence of discontinuing the annual accrual and amount included in cost of service effective September 1, 2005, as approved by this Commission in Order No. PSC-05-0902-S-EI. Listed below for comparative purposes are the current annual expense accrual requirements calculated as of 12/31/05 for Nuclear Decommissioning, End of Life Inventory and Nuclear Fuel Last Core values. Amounts are **jurisdictional** and exclude the participants' ownership interest in St. Lucie Unit No. 2.

	Last Approved Accrual (1)	Annual Accrual Calculated as of 12/31/05(2)	Increase Decrease) in Annual Accrual
Nuclear Decommissioning			
St Lucie Unit 1	$18,683,743	0	$(18,683,743)
St Lucie Unit 2	$12,797,597	0	$(12,797,597)
Total	$31,481,340	0	$(31,481,340)
End of Life Inventory Unit 2	$696,220	$255,614	$(440,606)
Nuclear Fuel Last Core			
St Lucie Unit 1	$1,789,549	$1,357,703	$(431,846)
St Lucie Unit 2	$ 567,255	$1,107,067	$ 539,812
Total	$2,356,804	$2,464,770	$ 107,966

(1) As approved in Docket No.981246-*EI*, Order No.PSC-02-0055-PAA-EI. Effective 5/1/02; (2) Effective 1/1/06

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
Executive Summary

Major Assumptions

Following is a brief summary of the major assumptions used in our analysis. The "Base Case Assumptions Section" of this filing contains additional detail regarding these and other assumptions used.

		St. Lucie Unit No. 1	St. Lucie Unit No. 2
DECOMMISSIONING FUNDS			
A.	Decommissioning Method	SAFSTOR/ Integrated DECON (Prompt Removal/ Dismantling)	DECON (Prompt Removal/ Dismantling)
B.	Total Decommissioning Cost Per TLG Services, Inc. (Current cost estimate in 2004 dollars)	$ 522,462,000	$ 515,110,000
C.	FPL's Cost of Decommissioning (Jurisdictional and net of Participants' obligation)	$ 520,170,482	$ 436,749,988
D.	Method of Funding (2006 - End) (1)	Qualified/ Nonqualified	Qualified/ Nonqualified
E	Funding Periods (Years till license expiration)	30.167	37.25
F	Assumed Fund Earnings Rate	5.0%	5.0%
G	Escalation rate for Decommissioning Costs (2005 - End) Overall Composite Rate	4.5%	4.7%
	Burial Cost Escalation	6.6%	6.6%
H	FPL Ownership Allocation	100%	85.16123%
MATERIALS & SUPPLIES INVENTORIES			
I	Inventory Value at End of Life (net of Participants' obligation)	N/A	$ 12,116,568
NUCLEAR FUEL LAST CORE VALUES			
J	Value at End of Life (net of Participants' obligation)	$ 47,700,000	$ 43,500,000

(1) No additional contributions are projected through the end of license. Qualified and Nonqualified Fund earnings (after-tax) are assumed to continue to be reinvested and accumulated in the respective funds.

SECTION 2

GENERAL DISCUSSION

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
General Discussion

DECOMMISSIONING ALTERNATIVES

The Nuclear Regulatory Commission's (NRC) "General Requirements for Decommissioning Nuclear Facilities" defines three decommissioning alternatives acceptable to the NRC, i.e., DECON, SAFSTOR and ENTOMB.

DECON is defined by the NRC as "the alternative in which equipment, structures, and the portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations."

SAFSTOR is defined as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use." Decommissioning is to be completed within 60 years, although longer time periods will be considered when necessary to protect public health and safety.

ENTOMB is defined as "the alternative in which radioactive contaminants are encased in a structurally long-lived material, such as concrete; the entombed structure is appropriately maintained and continued surveillance is carried out until the radioactive material decays to a level permitting unrestricted release of the property." As with the SAFSTOR alternative, decommissioning is currently required to be completed within 60 years.

In 1997, the Commission directed its staff to re-evaluate this alternative and provide it with an analysis of whether or not the staff views entombment as a viable decommissioning option and how this option has been dealt with previously by the Commission. The resulting evaluation provided several recommendations; however, rulemaking has been deferred pending the completion of additional research studies. In 1996, the NRC amended its decommissioning regulations to clarify ambiguities and codify procedures and terminology as a means of enhancing efficiency and uniformity in the decommissioning process. Regulatory Guide 1.184 issued in July, 2000, further describes the methods and procedures acceptable to the NRC staff for implementing the requirements of the 1996 amendments relating to the initial activities and major phases of the decommissioning process.

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
General Discussion

ALTERNATIVES CONSIDERED IN STUDY

The DECON and SAFSTOR alternatives were examined for the St. Lucie Study. The ENTOMB alternative was not considered, because it is considered impractical for a facility which generates significant amounts of long-lived radioactive material due to neutron activation. Specific attributes of the ENTOMB alternative which make it uneconomical when compared to the DECON and SAFSTOR alternatives are:

- a large up-front expenditure is required to encase the contaminated portion of the facility;
- workers incur greater levels of occupational exposure (compared to SAFSTOR);
- the plant must still be decontaminated and dismantled to complete decommissioning prior to the end of the 60 year period; and
- no significant reductions in low level radioactive waste (LLRW) volumes are achieved due to the 60-year time limitation.

DISMANTLEMENT ALTERNATIVE SELECTED

FPL selected an integrated DECON decommissioning option for St. Lucie Units 1 and 2. Due to the difference in the operating license period for St. Lucie Unit 1 and Unit 2, this option entails approximately 7 years of dormancy for Unit 1 followed by prompt dismantlement of both Units 1 and 2. This option was selected for two reasons.

1. Integrated dismantlement provides the lowest estimated cost in current dollars and enables a sequence of events, which allows for a one-time mobilization of contractor personnel and equipment.
2. This method results in the lowest estimated revenue requirement.

Additionally, the integrated DECON decommissioning option selected is consistent with integrated dismantling method last approved by the Commission for the St. Lucie Units in Docket No. 981246-EI.

STUDY METHODOLOGY

The TLG study for St. Lucie follows the basic approach originally presented in the Atomic Industrial Forum/National Environmental Studies Project report AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates". The contents of those guidelines were prepared under the review of a task force consisting of representatives from utilities, state regulatory commissions, architect/engineering firms, the Federal Energy Regulatory Commission, the NRC, and

the National Association of Regulatory Utility Commissioners. The study also utilizes guidance provided in the Department of Energy (DOE) "Decommissioning Handbook".

These references utilize a unit cost factor method for estimating decommissioning activity costs to simplify the estimating calculations. Unit cost factors for concrete removal, steel removal and cutting costs were developed from labor and material cost information provided by FPL. With the item quantity developed from plant drawings, inventory documents and equipment databases, the activity-dependent costs are estimated. The unit cost factors used in the study reflect the latest available information about worker productivity in decommissioning projects, including the Shippingport, Pathfinder, Shoreham, Yankee Rowe and Trojan reactors.

The activity duration critical path was used to determine the total decommissioning program schedule. The program schedule is used to determine the period-dependent costs for program management, administration, engineering, equipment rental, quality assurance and security costs.

The activity and period-dependent costs are combined to develop the total decommissioning costs. Contingency factors are then applied to major cost activities to provide for the types of unforeseeable events that are likely to occur in decommissioning.

FUNDING ALTERNATIVES
QUALIFIED vs NONQUALIFIED

Prior to 1989

In Docket No. 810100-EU, Order No. 10987 issued July 13, 1982, the Florida public Service Commission ordered FPL to establish an internally funded reserve. FPL made net of tax contributions to the fund from 1983 through 1987. In January 1988, FPL made qualified contributions for tax years 1984 through 1986 and funds were transferred from the nonqualified fund to the qualified funds. The qualified contributions for tax year 1987 were made in March 1988. FPL elected to make contributions to qualified decommissioning funds for the tax years 1984 through 1987 since it believed the advantages of a qualified fund outweighed any disadvantages in those years. The reduction in corporate Federal income tax rates effective July 1, 1987 was a major consideration in reaching this conclusion. The decision to make qualified election for these years was reviewed and approved by the Commission in Order No. 21928.

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
General Discussion

Present Company Treatment - 1989 to Date

Subsequent to 1988 the Company elected to make qualified contributions for the years 1992 through 2004, and for the year-to-date period ended August 31, 2005 has made qualified contributions, to the maximum allowed,. The increase in the corporate Federal income tax rate effective January 1, 1993 and the introduction of tax legislation which ultimately resulted in the reduction in the Federal income tax rate applicable to the earnings of the qualified funds from the maximum corporate Federal income tax rate to a rate of 22% for 1994 and 1995 and to 20% for years thereafter, were primary considerations which led to the election of qualified contributions for the years subsequent to 1991.

SPENT FUEL-RELATED COSTS

Background and Regulatory Guidance

Nuclear Waste Policy Act of 1982

The Nuclear Waste Policy Act of 1982 (NWPA) assigns to the Federal Government responsibility to provide for the permanent disposal of spent nuclear fuel (SNF) and high-level radioactive waste (HLW), and committed the DOE to begin acceptance of SNF/HLW not later than January 31, 1998 under the terms of its Standard Disposal Contracts with waste generators. The DOE has not yet provided for SNF storage and is not accepting SNF as committed to under the contract.

The generators of waste are expected to bear the cost of disposal. The operators of commercial reactors fund DOE's efforts through the 1.0 mil per kilowatt-hour charge assessed on the electricity generated with nuclear fuel.

Specific Regulations

Three provisions of current regulations affect decommissioning and SNF storage options.

1. Current NRC policy requires removal of all SNF from a facility licensed under Title 10 CFR Part 50 before decommissioning can be accomplished.
2. Title 10 CFR Part 50.54 (bb) requires the licensee, within 2 years following permanent cessation of operation of the reactor or 5 years before expiration of the reactor operating license, whichever occurs first, to submit written notification to the NRC for its review and preliminary approval of the program by which the licensee intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the

irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository. However, the NRC does not currently consider SNF management costs after expiration of the operating license, to be decommissioning costs.

3. Title 10 CFR Part 961, Appendix E requires SNF to be cooled in the spent fuel pools for at least five years before it can be accepted by DOE.

SPENT FUEL DAMAGES CLAIMS

FPL, along with a number of electric utilities, sued DOE over DOE's denial of its obligation to accept SNF beginning in 1998. On July 23, 1996, the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) held that DOE is required by the Nuclear Waste Policy Act (NWPA) to take title and dispose of SNF from nuclear power plants beginning on January 31, 1998 (Indiana Michigan Power Co. v. Department of Energy). DOE declined to seek further review of the decision, which was remanded to DOE for further proceedings. On December 17, 1996, DOE advised the electric utilities that it would not begin to dispose of SNF by the unconditional deadline.

On November 14, 1997, a panel of the D.C. Circuit found that DOE did not abide by the Court's earlier ruling that the NWPA imposes an unconditional obligation on DOE to begin disposal of spent fuel by January 31, 1998 (Northern States Power Company v. DOE). The Court's order precludes DOE from excusing its own delay on the grounds that it has not yet prepared a permanent repository or interim storage facility. The Court did not grant the other requests for relief. The U.S. Supreme Court denied DOE's request for review of the D.C. Circuit decision.

Based on the Indiana Michigan and Northern States Power Company rulings, in June 1998, FPL filed a lawsuit in the U.S. Court of Federal Claims (CFC) against the United States Government claiming damages arising out the Department of Energy's failure to begin the disposal of spent nuclear fuel (SNF) by the statutory deadline. The FPL claim is currently stayed.

In another SNF case, Indiana Michigan Power Company's (IM) damages claims were tried before another judge on the CFC. The trial judge ruled that IM was not entitled to any damages. On appeal, the U.S. Court of Appeals for the Federal Circuit (Federal Circuit) concluded that IM was not barred per se from recovering pre-breach damages, but affirmed the trial judge because "on these facts" the decision was not infected with legal error. The Federal Circuit also affirmed the trial judge's ruling that future damages are not recoverable, but concluded that the recovery of future incurred costs is permissible in a separate action, provided an action for such costs is brought within six years after such costs are incurred. IM has filed a petition for rehearing with the Federal

Circuit. If this decision is upheld, it could have an impact on FPL's spent fuel damages claims.

Private Fuel Storage, LLC

FPL purchased an interest in Private Fuel Storage, LLC (PFS) in May 2000. PFS is a consortium of eight utilities seeking to license, construct, and operate an independent spent fuel storage installation (ISFSI) in Tooele County, Utah, on the reservation of the Skull Valley Band of the Goshute Indian tribe. On September 9, 2005, the Nuclear Regulatory Commission directed its staff to issue a license to PFS for the interim storage of spent nuclear fuel on the Indian Reservation in Utah. PFS is an alternative to dry storage at an ISFSI at the plant site. FPL has not yet determined to what extent the PFS facility could or would be utilized for the storage of FPL's spent fuel if the facility is successfully constructed.

Spent Fuel Storage Costs Estimated in Decommissioning Study

Decommissioning Study Assumptions

The decommissioning study assumes that FPL will incur additional costs for the storage of SNF.

The spent fuel storage costs and schedule assumptions were developed consistent with prevailing assumptions of experts obtained by FPL to prepare its damage claim against the DOE. The decommissioning cost estimates included in this filing are based on the TLG prepared Decommissioning Cost Study for the St. Lucie Plant, Units 1 and 2 dated October, 2005.

Impact of Delay in DOE's Acceptance of SNF

FPL assumes the following in the delayed SNF acceptance scenario.

- Over the long-term, and particularly after the plant is shut down, dry storage of SNF is more cost effective than wet storage.
- DOE will not supply multipurpose canisters (MPCs) for on-site storage of SNF. The DOE terminated the MPC program in 1996 due to reduced appropriations for the waste program.
- FPL will pay for storage canisters.
- DOE's geologic repository will begin accepting SNF in 2015.

- The geologic repository will accept fuel at the receipt/emplacement rate projected in the "Acceptance Priority Ranking and Annual Capacity Report" (DOE/RW-0567, July 2004). This projection assumes that the repository will reach an annual acceptance rate of 3,000 Metric Tons of Uranium (MTU) in the fifth year of operation.

The St. Lucie decommissioning study assumes that an independent spent fuel storage installation (ISFSI) will be developed under the provisions of Title 10 CFR Part 72 to permit transfer of spent fuel from wet storage to dry storage. The expenditures for the development of the ISFSI are estimated to occur during commercial operation and only a nominal cost for the ISFSI pad expansion (projected to occur following the end of plant operations) is included in the study. Additionally, the study includes separately identified additional costs for the handling and packaging activities as well as the operation of the spent fuel pool during the transfer process. The ISFSI is expected to operate until 2060, when all SNF is expected to be off-site. Ultimately, the ISFSI will be decommissioned and the Part 72 license associated with the facility will be terminated.

The approximate dates for the loss of full core reserve (LOFCR) using installed storage systems are as follows:

Unit 1: 2008
Unit 2: 2010

SNF Impact on Decommissioning Schedule and Cost

The movement of the SNF to an ISFSI permits the termination of the Title 10 CFR Part 50 licenses as soon as possible after the shut down of both units. However, the completion of decommissioning for the entire site is delayed until 2060. The impacts of delayed acceptance of SNF by DOE on decommissioning costs are as follows:

1. ISFSI operation costs are incurred after the shut down of Unit 2 from 2043 through 2060.
2. ISFSI dismantlement and disposal costs are incurred.

OTHER ISSUES

License Renewal

On October 2, 2003, the NRC approved the license extension application of St. Lucie Units 1 and 2. This extension grants the authority for FPL to operate an additional 20 years. The current operating licenses will expire for Units 1 and 2 in March 2036 and

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
General Discussion

April 2043, respectively. The study assumes St. Lucie will operate through the extended license period.

Materials and Supplies Inventories – amortization

The decommissioning cost estimates contained in the TLG Decommissioning Cost Analysis section of this study and in the funding analysis contained in Support Schedule G of this filing do not take into consideration the unrecovered value of any Materials and Supplies Inventories that will ultimately exist at the site following shut down of both units. Both FPL and this Commission have previously recognized that there will be a level of inventories that will remain at the end of life of Unit No. 2, the last unit to reach end of license, that must be recovered prior to the end of site operations. These inventories are unique and will have little value other than scrap value when the units are decommissioned. The Commission approved the amortization of EOL M&S Inventories in Docket No 981246-EI and in Order No PSC-002-0055-PAA-EI required FPL to submit updated information with its next decommissioning study. As such, FPL has included in Support Schedule E of this filing the annual expense accrual associated with updated estimates of End of Life inventory values and an amortization period consistent with the extended operation resulting from license extensions at each nuclear unit. The results of the updated estimates presented in Support Schedule E will be reflected in FPL's accounting for End of Life Materials and Supplies Inventories effective January 1, 2006.

The annual expense/reserve accruals associated with End of Life Inventories are being accounted for, as directed by the Commission, in a separate (unfunded) sub-account of Reserve Account 228

Nuclear Fuel Last Core – amortization

FPL recognizes that there will be unburned fuel that will remain in the fuel assemblies at the end of the last operating cycle of each nuclear unit when it ceases operation. In Docket No 981246-EI the Commission found that the cost associated with the Last Core were costs that should be considered a base rate future obligation and that amortization of this obligation over the remaining life span of each nuclear unit ratably allocates the costs to those customers receiving the benefit of the nuclear generation and avoids a burdensome expense at the time of unit shut down. In Order No. PSC-002-0055-PAA-EI the Commission authorized FPL to begin recording the amortization of estimated Last Core costs as a base rate fuel expense with a credit to a separate (unfunded) sub-account of Reserve Account 228. Additionally, the Commission directed the Company to address the costs associated with the Last Core in subsequent decommissioning studies so that the related annual accruals can be revised, if

warranted. As such, FPL has included in Support Schedule F of this filing the annual expense accrual based on an updated estimate of end of life unburned nuclear fuel Last Core values and an amortization period consistent with the extended operation resulting from license extensions at each nuclear unit. The results of the updated estimates presented in Support Schedule F will be reflected in FPL's accounting for End of Life Nuclear Fuel Last Core Values effective January 1, 2006.

The annual expense/reserve accruals associated with End of Life Nuclear Fuel Last Core values are accounted for, as directed by the Commission, in a separate (unfunded) sub-account of Reserve Account 228.

SECTION 3

BASE CASE ASSUMPTIONS

Florida Power & Light Company
2005
Decommissioning Study
St. Lucie Nuclear Units
Base Case Assumptions

Following is a summary of the assumptions used to derive the annual accrual, and funding and revenue requirement amounts sought by FPL. These assumptions are more fully developed on the following pages.

1. Base Case Assumptions Summary

		Unit No. 1	Unit No. 2
A.	Decommissioning Method	SAFSTOR/ Integrated DECON (Prompt Removal/ Dismantling	DECON (Prompt Removal/ Dismantling)
B.	Total Decommissioning Cost Per TLG Services, Inc. (current cost estimate in 2004 $)	$ 522,462,000	$ 515,110,000
C.	FPL's Cost of Decommissioning (Jurisdictional and net of Unit No. 2 Participants' obligation) In 2004 $	$ 520,170,482	$ 436,749,988
D.	Method of Funding (2005 – End)	Qualified/ Nonqualified	Qualified/ Nonqualified
E.	Funding Periods (Years till License Expiration)	30.167	37.25
F.	Assumed Fund Earnings rate	5.0%	5.0%
G.	Escalation Rate for Decommissioning Costs (2005 – End)	4.5%	4.7%
H.	FPL Ownership Allocation (%)	100%	85.16123%
I.	FPSC Jurisdictional Separation Factor (%)	99.5614%	99.5614%
J.	Estimated Fund Balance - Qualified (12/31/05)	$ 366,018,000	$ 328,118,000

Florida Power & Light Company
2005
Decommissioning Study
St. Lucie Nuclear Units
Base Case Assumptions

		Unit No. 1	Unit No. 2
K	Estimated fund Balance - Nonqualified (12/31/05)	$ 111,664,000	$ 55,603,000
L.	End of Life M & S Inventory Value (Net Of Participants' obligation)	N/A	$12,116,568
M.	End of Life Nuclear Fuel Last Core Values (Net of Participants' obligation)	$47,700,000	$43,500,000

2. Decommissioning Costs

Below are the estimated costs of Decommissioning the St. Lucie facility as provided by TLG in 2004 dollars.

St. Lucie Unit No. 1		
Labor	$	288,631,000
Materials		91,732,000
Shipping		9,678,000
Burial		59,222,000
Other		73,199,000
Total		522,462,000

St. Lucie Unit No. 2		
Labor	$	301,098,000
Materials		66,776,000
Shipping		12,035,000
Burial		78,777,000
Other		56,424,000
Total		515,110,000

3. Funding Method

For the projected period subsequent to 2005, it is assumed that no additional accruals or contributions will be required. Only the after-tax earnings of the qualified and nonqualified fund investments will continue to accumulate in their respective funds through the end of the projected decommissioning period. Future decommissioning expenditures are assumed to be distributed from the qualified and nonqualified funds in proportion to the balance accumulated at the time of expenditure.

4. Funding Period

The funding period, to the extent funding is required, is that period over which revenues are collected from ratepayers for purposes of decommissioning the St. Lucie Units.

The funding period over which the updated funding requirements are computed for St. Lucie No. 1 and No. 2 is assumed to begin in 2006.

Funding periods for both units end on the last day of the month preceding the month in which the operating license for the unit is due to expire. Based on the additional 20 year license extensions approved by the NRC the license expiration dates for the St. Lucie units are as follows.

- St. Lucie Unit No. 1 - March 1, 2036
- St. Lucie unit No. 2 - April 6, 2043

Based on the results of the funding analysis presented in Support Schedule G, no additional funding is required subsequent to 2005.

5. Fund Earnings Rate

In Order No. PSC-02-0055-PAA-EI, Docket No. 981246-EI the Commission found the appropriate fund earnings rate, net of taxes and all other administrative costs charged to the trust fund, to be 4.70%. This rate represented the long term average CPI rate of change as forecasted by DRI for the period over which the funds will be invested, plus an additional 1.10 basis points (3.60% + 1.10%).

For purposes of this 2005 study update and funding analysis, the projected annual funds earnings rate, net of taxes and all other administrative costs charged to the trust funds, for Units 1 and 2 qualified and nonqualified fund investments, is assumed to be 5.0%. This assumption is based on a projected real long-term, after tax and net of fees, earnings rate of 2.40% plus an assumed inflation rate of 2.60%. The long-term, after tax and net of fees earnings rate reflects the current investment strategy, modified for the final five years of decommissioning (the 5 years ending 2054 for the Turkey Point Units & ending 2061 for the St Lucie Units) to reflect a more conservative all bonds & cash asset mix. FPL recognizes that over the long-term period there will

likely be periods when the earned return may be greater or less than the assumed 5.00%. Consistent with prior Commission practice and Rule 25-6.04365 (FAC) the assumptions presented in this 2005 study will be reviewed and updated as appropriate "at least once every five years".

The annual rates of change in CPI were taken from "The U. S. Economy, The 30 – Year Focus, Third – Quarter 2005", published by GlobalInsight.

6. Escalation Rate

The annual escalation rates used to estimate total future dismantlement costs from January 1, 2005 through the final year of decommissioning are as follows:

	Average Annual Escalation Rate
St. Lucie Unit No. 1	4.5%
St. Lucie Unit No. 2	4.7%

The above rates were derived by applying separate inflation indices to each of the major cost components of Labor, Materials and Equipment, Shipping, Burial, and Other.

Cost Component	Inflation Index
Labor	Compensation per Hour
Materials and Equip.	PPI - Intermediate Materials, Supplies, and Components
Shipping	GDP Deflator-Transportation
Burial	FPL Analysis & CPI
Other	GDP (Implicit)

Burial costs for the years 2005 through the end of the decommissioning period are assumed to increase at a rate similar to general inflation, adjusted for variability historically exhibited by LLRW disposal costs. For purposes of this 2005 study update

an average annual rate of 6.6% was used. This annual rate is equivalent to the forecasted Long -Term change in CPI + 4.00%. The rate of increase in LLRW burial cannot be predicted with exact certainty; however, the resulting annual increase is considered reasonable and approximates the increase experienced since FPL's last decommissioning cost study (Revised October 1999).

For a more detail calculation of the overall weighted average escalation rate and annual rate of change for each component please refer to Support Schedule G ("Inflation and Funding Analysis") on pages 1 through 3.

7. FPL/Participant Ownership Share of Nuclear Units

The participants and their ownership interests in the St. Lucie facility are as follows:

	St. Lucie Unit No. 1	St. Lucie Unit No. 2
Florida Power & Light Company	100.0%	85.10449%
Orlando Utilities Commission	0.0	6.08951
Florida Municipal Power Agency	0.0	8.80600
Total	100.0%	100.00000%

For purposes of allocating decommissioning costs between FPL and Participants in the St. Lucie Unit No. 2, an adjustment was made to the ownership percentages to reflect the appropriate Common Facility cost obligation of participants.

This adjustment was necessary because the decommissioning cost study attributes common facility costs to St. Lucie No. 2. Because the Participants contractual obligation currently provides that they pay for only their ownership share times one-half of the common facility costs, to apply their ownership share to the total cost of decommissioning Unit No. 2 would overstate the participants' cost obligation. This adjustment to the ownership percentage is reflected in what is termed a "Cost Allocation Factor" and represents the cost obligation of FPL and participants as a percentage of the total costs of decommissioning. The "Cost Allocation Factor" calculation is given in Support Schedule H "Cost Allocation Analysis".

The Cost Allocation Factors for St. Lucie Unit No. 2 are:

	St. Lucie No. 2
Florida Power & Light Company	85.16123%
Participants	14.83877
Total	100.00000%

Participant Owners Funding Status:

		$ thousands		
Participant	Allocated Share	Allocated Costs 2004 $'s	Note (a) Required at 12/31/2004	Amount Funded at 12/31/2004
Orlando Utilities Commission (OUC)	6.06628%	31,248	10,937	25,494
Florida Municipal Power Agency (FMPA)	8.77249%	45,188	15,816	34,345
Participant's Total	14.83877%	76,436	26,753	59,839
Florida Power and Light	85.16123%	438,674		
Total	100.00000%	515,110		

Note (a):
At December 31, 2004, the funded balance should approximate 35%
(21 yrs. / 60 yrs.) of decommissioning costs.

8. FPSC Jurisdictional Factor

The factor applicable to both units is 99.5614%.

9. Fund Balances

Estimated/actual fund balances (qualified and nonqualified) at December 31, 2005[(a)] for each of the two St. Lucie Units are as Follows:

$(000)

	Qualified	Nonqualified
Unit No. 1	$ 366,018	$ 111,664
Unit No. 2	$ 328,118	$ 55,603

(a) Excluding unrealized market gains/losses.

See support Schedule C ("Projected Fund and Reserve Balances") for detail composition and adjustments to the qualified and nonqualified fund balances.

10. End of Life Materials and Supplies Inventory Values

The Materials and Supplies inventory balance, less estimated salvage, that is anticipated to remain at the end of life of Unit No. 2, the last unit to reach end of license, is projected to be $ 12,116,568 (Net of Participants' obligation). The actual balance accrued as of 12/31/05 is $ 2,553,012.

See Support Schedule E (End-of-Life Materials and Supplies Inventory) for annual expense accrual calculations based on an amortization period consistent with the extended operations resulting from the 20 year license extension for each unit. This information is presented in compliance with Order No. PSC-02-0055-PAA-EI., wherein the Commission directed FPL to address the amortization status of end of life M&S inventories in subsequent decommissioning studies so that the related annual accrual can be revised, if necessary. The results of the updated estimates presented in Support Schedule E will be reflected in FPL's accounting for End of Life Materials and Supplies Inventory effective January 1, 2006.

11. End of Life Last Core Nuclear Fuel Values

The estimated cost of unburned fuel remaining in the reactor at the end of life (end of license) for each unit is:

- Unit No. 1 $47,700,000
- Unit No. 2 (net of Participant's costs) $43,500,000

The actual balances accrued as of 12/31/05 are:

- Unit No. 1 $6,562,204
- Unit No. 2 (net of Participant's costs) $2,080,100

See Support Schedule F ("End-of-Life Unamortized Nuclear Fuel Expense Accrual) for annual expense accrual calculations based on an amortization period consistent with the extended operations resulting from the 20 year license extension for each unit. This information is presented in compliance with Order No. PSC-02-0055-PAA-EI., wherein the Commission directed FPL to address the costs associated with the last core in subsequent decommissioning studies so that the related annual accrual can be revised, if warranted. The results of the updated estimates presented in Support Schedule F will be reflected in FPL's accounting for End of Life Last Core Nuclear Fuel Values effective January 1, 2006

SECTION 4

SUPPORT SCHEDULE A
Nuclear Decommissioning Reserve Balance
December 31, 2000 through October 31, 2005

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Reserve Balances (1)
December 31, 2000 through October 31, 2005
$000

December 31, 2001	Beginning Balance	Revenues Collected	Earnings to Reserve	Ending Balance
NONQUALIFIED				
Turkey Point Unit No. 3	136,681	2,812	7,579	147,072
Turkey Point Unit No. 4	148,112	3,504	8,158	159,774
St. Lucie Unit No. 1	130,099	1,883	6,948	138,929
St. Lucie Unit No. 2	72,752	0	3,632	76,384
TOTAL	487,644	8,199	26,317	522,159
QUALIFIED				
Turkey Point Unit No. 3	174,579	15,144	8,257	197,980
Turkey Point Unit No. 4	200,358	19,224	9,197	228,778
St. Lucie Unit No. 1	237,529	22,540	11,279	271,347
St. Lucie Unit No. 2	212,764	19,546	9,952	242,263
TOTAL	825,230	76,454	38,685	940,368
TOTAL RESERVES				
Turkey Point Unit No. 3	311,260	17,956	15,836	345,052
Turkey Point Unit No. 4	348,470	22,728	17,355	388,552
St. Lucie Unit No. 1	367,628	24,423	18,227	410,276
St. Lucie Unit No. 2	285,516	19,546	13,584	318,647
TOTAL	1,312,874	84,653	65,002	1,462,527
December 31, 2002				
NONQUALIFIED				
Turkey Point Unit No. 3	147,072	6,424	6,071	159,567
Turkey Point Unit No. 4	159,774	7,195	6,554	173,523
St. Lucie Unit No. 1	138,929	4,592	5,665	149,186
St. Lucie Unit No. 2	76,384	49	2,908	79,341
TOTAL	522,159	18,260	21,198	561,617
QUALIFIED				
Turkey Point Unit No. 3	197,980	14,106	8,770	220,856
Turkey Point Unit No. 4	228,778	17,195	9,949	255,922
St. Lucie Unit No. 1	271,347	16,006	11,723	299,076
St. Lucie Unit No. 2	242,263	14,999	10,626	267,888
TOTAL	940,368	62,306	41,068	1,043,742
TOTAL RESERVES				
Turkey Point Unit No. 3	345,052	20,530	14,841	380,423
Turkey Point Unit No. 4	388,552	24,390	16,503	429,446
St. Lucie Unit No. 1	410,276	20,598	17,388	448,262
St. Lucie Unit No. 2	318,647	15,048	13,534	347,228
TOTAL	1,462,527	80,566	62,266	1,605,359

(1) Balances exclude unrealized market gains/losses.

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Reserve Balances (1)
December 31, 2000 through October 31, 2005
$000

December 31, 2003	Beginning Balance	Revenues Collected	Earnings to Reserve	Ending Balance
NONQUALIFIED				
Turkey Point Unit No. 3	159,567	8,841	7,332	175,740
Turkey Point Unit No. 4	173,523	8,051	7,921	189,496
St. Lucie Unit No. 1	149,186	5,575	6,802	161,564
St. Lucie Unit No. 2	79,341	1	3,561	82,903
TOTAL	561,617	22,468	25,616	609,703
QUALIFIED				
Turkey Point Unit No. 3	220,856	12,976	6,336	240,168
Turkey Point Unit No. 4	255,922	17,171	7,447	280,541
St. Lucie Unit No. 1	299,076	13,110	8,746	320,932
St. Lucie Unit No. 2	267,888	12,798	7,921	288,606
TOTAL	1,043,742	56,055	30,450	1,130,246
TOTAL RESERVES				
Turkey Point Unit No. 3	380,423	21,817	13,668	415,908
Turkey Point Unit No. 4	429,446	25,222	15,368	470,037
St. Lucie Unit No. 1	448,262	18,685	15,548	482,496
St. Lucie Unit No. 2	347,228	12,799	11,482	371,509
TOTAL	1,605,359	78,523	56,066	1,739,949
December 31, 2004				
NONQUALIFIED				
Turkey Point Unit No. 3	175,740	8,568	6,609	190,917
Turkey Point Unit No. 4	189,496	8,409	7,117	205,022
St. Lucie Unit No. 1	161,564	5,693	6,072	173,329
St. Lucie Unit No. 2	82,903	1	3,114	86,018
TOTAL	609,703	22,671	22,912	655,286
QUALIFIED				
Turkey Point Unit No. 3	240,168	13,249	7,207	260,624
Turkey Point Unit No. 4	280,541	16,814	8,202	305,557
St. Lucie Unit No. 1	320,932	12,992	9,424	343,347
St. Lucie Unit No. 2	288,606	12,797	8,553	309,957
TOTAL	1,130,246	55,852	33,386	1,219,485
TOTAL RESERVES				
Turkey Point Unit No. 3	415,908	21,817	13,816	451,541
Turkey Point Unit No. 4	470,037	25,223	15,319	510,579
St. Lucie Unit No. 1	482,496	18,685	15,496	516,676
St. Lucie Unit No. 2	371,509	12,798	11,667	395,974
TOTAL	1,739,949	78,523	56,298	1,874,771

(1) Balances exclude unrealized market gains/losses.

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Reserve Balances (1)
December 31, 2000 through October 31, 2005
$000

October 31, 2005	Beginning Balance	Revenues Collected	Earnings to Reserve	Ending Balance
NONQUALIFIED				
Turkey Point Unit No. 3	190,917	1,818	5,971	198,706
Turkey Point Unit No. 4	205,022	2,102	6,416	213,539
St. Lucie Unit No. 1	173,329	1,557	5,428	180,314
St. Lucie Unit No. 2	86,018	1,067	2,703	89,787
TOTAL	655,286	6,544	20,518	682,347
QUALIFIED				
Turkey Point Unit No. 3	260,624	12,727	7,340	280,691
Turkey Point Unit No. 4	305,557	14,713	7,700	327,970
St. Lucie Unit No. 1	343,347	10,900	8,800	363,047
St. Lucie Unit No. 2	309,957	7,466	8,032	325,455
TOTAL	1,219,485	45,806	31,872	1,297,162
TOTAL RESERVES				
Turkey Point Unit No. 3	451,541	14,545	13,311	479,397
Turkey Point Unit No. 4	510,579	16,815	14,116	541,510
St. Lucie Unit No. 1	516,676	12,457	14,228	543,361
St. Lucie Unit No. 2	395,974	8,533	10,735	415,242
TOTAL	1,874,771	52,350	52,390	1,979,509

(1) Balances exclude unrealized market gains/losses.

SECTION 5

SUPPORT SCHEDULE B
Nuclear Decommissioning Fund Balance
December 31, 2000 through October 31, 2005

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Fund Balances (1)
December 31, 2000 through October 31, 2005
$000

	Beginning Balance	Contribution	Fund Earnings	Ending Balance
December 31, 2001				
NONQUALIFIED				
Turkey Point Unit No. 3	83,956	1,728	4,655	90,339
Turkey Point Unit No. 4	90,978	2,152	5,011	98,141
St Lucie Unit No. 1	79,913	1,156	4,268	85,337
St Lucie Unit No. 2	44,688	0	2,231	46,919
Total	299,535	5,036	16,165	320,736
QUALIFIED				
Turkey Point Unit No. 3	174,579	15,144	8,257	197,980
Turkey Point Unit No. 4	200,358	19,224	9,197	228,778
St Lucie Unit No. 1	237,529	22,540	11,279	271,347
St Lucie Unit No. 2	212,764	19,546	9,952	242,263
Total	825,230	76,454	38,685	940,368
TOTAL				
Turkey Point Unit No. 3	258,535	16,872	12,912	288,319
Turkey Point Unit No. 4	291,336	21,376	14,208	326,919
St Lucie Unit No. 1	317,442	23,696	15,547	356,685
St Lucie Unit No. 2	257,452	19,546	12,183	289,182
Total	1,124,765	81,490	54,850	1,261,104
December 31, 2002				
NONQUALIFIED				
Turkey Point Unit No. 3	90,339	3,946	3,729	98,014
Turkey Point Unit No. 4	98,141	4,420	4,026	106,587
St Lucie Unit No. 1	85,337	2,821	3,480	91,638
St Lucie Unit No. 2	46,919	30	1,786	48,735
Total	320,736	11,217	13,021	344,973
QUALIFIED				
Turkey Point Unit No. 3	197,980	14,106	8,770	220,856
Turkey Point Unit No. 4	228,778	17,195	9,949	255,922
St Lucie Unit No. 1	271,347	16,006	11,723	299,076
St Lucie Unit No. 2	242,263	14,999	10,626	267,888
Total	940,368	62,306	41,068	1,043,742
TOTAL				
Turkey Point Unit No. 3	288,319	18,052	12,499	318,870
Turkey Point Unit No. 4	326,919	21,615	13,975	362,509
St Lucie Unit No. 1	356,685	18,827	15,203	390,713
St Lucie Unit No. 2	289,182	15,029	12,412	316,623
Total	1,261,104	73,523	54,089	1,388,715

(1) Balances exclude unrealized market gains/losses.

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Fund Balances (1)
December 31, 2000 through October 31, 2005
$000

	Beginning Balance	Contribution	Fund Earnings	Ending Balance
December 31, 2003				
NONQUALIFIED				
Turkey Point Unit No. 3	98,014	5,430	4,504	107,948
Turkey Point Unit No. 4	106,587	4,945	4,866	116,398
St Lucie Unit No. 1	91,638	3,425	4,178	99,241
St Lucie Unit No. 2	48,735	1	2,187	50,923
Total	344,973	13,801	15,735	374,510
QUALIFIED				
Turkey Point Unit No. 3	220,856	12,976	6,336	240,168
Turkey Point Unit No. 4	255,922	17,171	7,447	280,541
St Lucie Unit No. 1	299,076	13,110	8,746	320,932
St Lucie Unit No. 2	267,888	12,798	7,921	288,606
Total	1,043,742	56,055	30,450	1,130,246
TOTAL				
Turkey Point Unit No. 3	318,870	18,406	10,840	348,116
Turkey Point Unit No. 4	362,509	22,116	12,313	396,939
St Lucie Unit No. 1	390,713	16,535	12,924	420,172
St Lucie Unit No. 2	316,623	12,799	10,108	339,529
Total	1,388,715	69,856	46,185	1,504,756
December 31, 2004				
NONQUALIFIED				
Turkey Point Unit No. 3	107,948	5,263	4,060	117,271
Turkey Point Unit No. 4	116,398	5,165	4,372	125,935
St Lucie Unit No. 1	99,241	3,497	3,730	106,467
St Lucie Unit No. 2	50,923	1	1,913	52,837
Total	374,510	13,926	14,075	402,509
QUALIFIED				
Turkey Point Unit No. 3	240,168	13,249	7,207	260,624
Turkey Point Unit No. 4	280,541	16,814	8,202	305,557
St Lucie Unit No. 1	320,932	12,992	9,424	343,347
St Lucie Unit No. 2	288,606	12,798	8,553	309,957
Total	1,130,246	55,853	33,386	1,219,485
TOTAL				
Turkey Point Unit No. 3	348,116	18,512	11,267	377,895
Turkey Point Unit No. 4	396,939	21,979	12,574	431,491
St Lucie Unit No. 1	420,172	16,489	13,154	449,815
St Lucie Unit No. 2	339,529	12,799	10,466	362,793
Total	1,504,756	69,779	47,461	1,621,994

(1) Balances exclude unrealized market gains/losses.

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Nuclear Decommissioning Fund Balances (1)
December 31, 2000 through October 31, 2005
$000

October 31, 2005	Beginning Balance	Contribution	Fund Earnings	Ending Balance
NONQUALIFIED				
Turkey Point Unit No. 3	117,271	1,117	3,668	122,055
Turkey Point Unit No. 4	125,935	1,291	3,941	131,167
St Lucie Unit No. 1	106,467	956	3,334	110,758
St Lucie Unit No. 2	52,837	655	1,660	55,152
Total	402,509	4,019	12,603	419,132
QUALIFIED				
Turkey Point Unit No. 3	260,624	12,727	7,340	280,691
Turkey Point Unit No. 4	305,557	14,713	7,700	327,970
St Lucie Unit No. 1	343,347	10,900	8,800	363,047
St Lucie Unit No. 2	309,957	7,466	8,032	325,455
Total	1,219,485	45,806	31,872	1,297,162
TOTAL				
Turkey Point Unit No. 3	377,895	13,844	11,008	402,746
Turkey Point Unit No. 4	431,491	16,004	11,641	459,137
St Lucie Unit No. 1	449,815	11,856	12,134	473,805
St Lucie Unit No. 2	362,793	8,121	9,692	380,606
Total	1,621,994	49,825	44,475	1,716,294

(1) Balances exclude unrealized market gains/losses.

SECTION 6

SUPPORT SCHEDULE C
Projected Fund and Reserve Balance
at December 31, 2005

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Projected Fund and Reserve Balance at December 31, 2005 [a]
$000

	TURKEY POINT UNIT 3	TURKEY POINT UNIT 4	ST. LUCIE UNIT 1	ST. LUCIE UNIT 2 (Note 1)	TOTALS
NON-QUALIFIED FUND					
Actual Fund Balance @10/31/05	122,055	131,167	110,758	55,152	419,132
Add: Estimate Income Nov. - Dec. 2005 (after-tax)	999	1,073	906	451	3,429
Est/Actual Fund Balance @ 12/31/05	123,054	132,240	111,664	55,603	422,561
QUALIFIED FUND					
Actual Fund Balance @10/31/05	280,691	327,970	363,047	325,455	1,297,162
Add: Estimate Income Nov. - Dec. 2005 (after-tax)	2,297	2,684	2,971	2,663	10,615
Est/Actual Fund Balance @ 12/31/05	282,988	330,654	366,018	328,118	1,307,778
TOTAL FUND					
Actual Fund Balance @10/31/05	402,746	459,137	473,805	380,606	1,716,294
Add: Estimate Income Nov. - Dec. 2005 (after-tax)	3,296	3,757	3,877	3,114	14,044
Est/Actual Fund Balance @ 12/31/05	406,042	462,894	477,682	383,720	1,730,338
NON-QUALIFIED RESERVE					
Actual Reserve Balance@10/31/05	198,706	213,539	180,314	89,787	682,347
Add: Estimate Income Nov. - Dec. 2005	1,626	1,747	1,475	734	5,582
Est/Actual Reserve Balance@12/31/05	200,332	215,286	181,789	90,521	687,928
QUALIFIED RESERVE					
Actual Reserve Balance@10/31/05	280,691	327,970	363,047	325,455	1,297,162
Add: Estimate Income Nov. - Dec. 2005	2,297	2,684	2,971	2,663	10,615
Est/Actual Reserve Balance@12/31/05	282,988	330,654	366,018	328,118	1,307,778
TOTAL RESERVE					
Actual Reserve Balance@10/31/05	479,397	541,510	543,361	415,242	1,979,509
Add: Estimate Income Nov. - Dec. 2005	3,923	4,431	4,446	3,397	16,197
Est/Actual Reserve Balance@12/31/05	483,320	545,941	547,807	418,639	1,995,706

(a) Balances exclude unrealized market gains/losses.

Note (1): Amounts for St Lucie Common are included with Unit No. 2

SECTION 7

SUPPORT SCHEDULE D
Reconciliation of Projected Fund and Reserve Balance
at December 31, 2005

Florida Power & Light Company
2005 Decommissioning Study
Support Schedule: Reconciliation of Projected Fund and Reserve Balance at December 31, 2005[a]
$000

RECONCILIATION FUND/RESERVE
Projected 12/31/05

	TURKEY POINT UNIT 3	TURKEY POINT UNIT 4	ST. LUCIE UNIT 1	ST. LUCIE UNIT 2 (Note 1)	TOTALS
NON-QUALIFIED					
Projected Fund Balance @12/31/05	123,054	132,240	111,664	55,603	422,561
Deferred Tax @ 12/31/05	77,278	83,046	70,125	34,918	265,367
Projected Reserve Balance @ 12/31/05	200,332	215,286	181,789	90,521	687,928
QUALIFIED					
Projected Fund Balance @12/31/05	282,988	330,654	366,018	328,118	1,307,778
Deferred Tax @ 12/31/05	0	0	0	0	0
Projected Reserve Balance @ 12/31/05	282,988	330,654	366,018	328,118	1,307,778
TOTAL					
Projected Fund Balance @12/31/05	406,042	462,894	477,682	383,720	1,730,338
Deferred Tax @ 12/31/05	77,278	83,046	70,125	34,918	265,367
Projected Reserve Balance @ 12/31/05	483,320	545,940	547,807	418,638	1,995,705

DEFERRED TAXES
Projected balance @ 12/31/05

NON-QUALIFIED FUND					
Balance @ 10/31/05 (Fed & State)	76,651	82,373	69,556	34,635	263,215
Add: Tax on Earnings Nov. - December	627	673	569	283	2,152
Balance @ 12/31/05 (Fed & State)	77,278	83,046	70,125	34,918	265,367

(a) Balances exclude unrealized market gains/losses.

Note (1): Amounts for St Lucie Common are included with Unit No. 2

SECTION 8

SUPPORT SCHEDULE E
End-of-Life Materials and Supplies Inventory
Expense Accrual Calculation

Florida Power and Light Company
2005 Decommissioning Study
Support Schedule: End-of-Life Materials and Supplies Inventory
Expense Accrual Calculation

Line Number		St. Lucie Unit 2
1	Adjusted Ending Inventory Value @ End of License	$ 13,258,657
2	Estimated Salvage	(167,059)
3	**Inventory Subject to Write-off**	**$ 13,091,598**
4		
5	**FPL's Ownership Share Net of Participants (1)**	**$ 12,116,568**
6		
7	Estimated/Actual Reserve Balance Accrued as of 12/31/05	2,553,012
8		
9	**Remaining Amount to be Recovered as of 12/31/05**	**$ 9,563,556**
10		
11		
12	Total Number of Months From:	
13	12/31/05 to End of License	447
14		
15	**Required Accrual From 1/1/06 to End of License (2)**	
16	Monthly	$ 21,395
17	Annual	$ 256,740
18		
19	**Current Accrual Effective 05/01/02**	
20	Monthly	$ 58,023
21	Annual	$ 696,276
22		
23	**Increase (Decrease) Required as of 1/1/06**	
24	**Monthly**	$ (36,628)
25	**Annual**	$ (439,536)
26		
27		
28		

29 (1) The Participants' obligation is assumed to be treated the same as "Common Facility Cost"
30 which is calculated at one-half their ownership percentage. (0.5 * 14.89551% = 7.447755%)
31 Therefore, FPL's ownership share is 92.552245%.
32 (2) The results of this updated estimate will be reflected in FPL's accounting for End of Life
33 Mateial & Supplies Inventory effective January 1, 2006.

SECTION 9

SUPPORT SCHEDULE F
End-of-Life Unamortized Nuclear Fuel
Expense Accrual Calculation

Florida Power and Light Company
2005 Decommissioning Study
Support Schedule: End-of-Life Unamortized Nuclear Fuel
Expense Accrual Calculation

Line Number		St. Lucie Unit 1	St. Lucie Unit 2
1	**Estimated Cost of Unburned Fuel @ End of License**		
2	**FPL's Unit 2 Ownership Share Net of Participants**	**$ 47,700,000**	**$ 43,500,000**
3			
4	Estimated/Actual Reserve Balance Accrued as of 12/31/05	6,562,204	2,080,100
5			
6	**Remaining Amount to be Recovered as of 12/31/05**	**$ 41,137,796**	**$ 41,419,900**
7			
8			
9	Total Number of Months From:		
10	**12/31/05 to End of License**	362	447
11			
12	**Required Accrual From 1/1/06 to End of License**		
13	Monthly	$ 113,640	$ 92,662
14	Annual	$ 1,363,684	$ 1,111,944
15			
16	**Current Accrual Effective 05/01/02**		
17	Monthly	$ 149,141	$ 47,275
18	Annual	$ 1,789,692	$ 567,300
19			
20	**Increase (Decrease) Required as of 1/1/06**		
21	**Monthly**	**$ (35,501)**	**$ 45,387**
22	**Annual**	**$ (426,008)**	**$ 544,644**
23			
24			
25			
26			
27	(1) The results of the updated estiamtes will be reflected in FPL's accounting for End of Life		
28	Nuclear Fuel Last Core values effective January 1, 2006.		

SECTION 10

SUPPORT SCHEDULE G
Inflation and Funding Analysis

INFLATION FORECAST

The U.S. Economy
The 30 - Year Focus Third Quarter 2005
GLOBAL INSIGHT

YEAR	GDP	HRLY COMP	PPI INT M&S	GDP Transport	Burial	CPI	CPI MULTIPLIER
2004	**2.6%**	**4.8%**	**6.6%**	**2.2%**	6.6%	**2.7%**	**1.000**
2005	2.5%	5.7%	6.6%	3.2%	6.6%	3.1%	1.031
2006	2.1%	3.9%	1.0%	3.3%	6.6%	2.2%	1.054
2007	2.0%	4.1%	-1.8%	2.6%	6.6%	1.7%	1.072
2008	2.1%	4.3%	-1.0%	2.6%	6.6%	1.9%	1.092
2009	2.1%	4.4%	-0.4%	2.6%	6.6%	2.1%	1.115
2010	2.2%	4.4%	0.0%	2.7%	6.6%	2.2%	1.139
2011	2.4%	4.5%	0.9%	3.0%	6.6%	2.6%	1.169
2012	2.5%	4.5%	1.1%	3.0%	6.6%	2.7%	1.201
2013	2.5%	4.4%	1.0%	2.9%	6.6%	2.7%	1.233
2014	2.4%	4.3%	0.9%	2.9%	6.6%	2.6%	1.265
2015	2.4%	4.4%	0.8%	3.0%	6.6%	2.6%	1.298
2016	2.5%	4.6%	0.9%	3.0%	6.6%	2.7%	1.333
2017	2.5%	4.7%	0.9%	3.0%	6.6%	2.7%	1.369
2018	2.5%	4.7%	1.0%	3.0%	6.6%	2.7%	1.406
2019	2.5%	4.7%	1.0%	3.0%	6.6%	2.7%	1.444
2020	2.5%	4.7%	0.9%	3.0%	6.6%	2.7%	1.483
2021	2.5%	4.7%	0.9%	3.0%	6.6%	2.7%	1.523
2022	2.5%	4.6%	0.9%	3.0%	6.6%	2.7%	1.564
2023	2.5%	4.6%	0.9%	3.0%	6.6%	2.7%	1.606
2024	2.5%	4.5%	0.9%	3.0%	6.6%	2.7%	1.650
2025	2.5%	4.5%	0.9%	3.0%	6.6%	2.7%	1.694
2026	2.5%	4.5%	0.9%	2.9%	6.6%	2.7%	1.740
2027	2.5%	4.5%	0.9%	2.9%	6.6%	2.7%	1.787
2028	2.5%	4.5%	0.8%	2.9%	6.6%	2.7%	1.835
2029	2.5%	4.5%	0.8%	2.9%	6.6%	2.7%	1.885
2030	2.5%	4.5%	0.8%	2.9%	6.6%	2.7%	1.936
2031	2.5%	4.5%	0.9%	2.9%	6.6%	2.7%	1.988
2032	2.5%	4.5%	0.8%	2.9%	6.6%	2.7%	2.042
2033	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.097
2034	2.5%	4.5%	0.8%	2.9%	6.6%	2.7%	2.153
2035	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.211
2036	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.271
2037	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.332
2038	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.395
2039	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.460
2040	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.527
2041	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.595
2042	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.665
2043	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.737
2044	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.811
2045	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.887
2046	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	2.964
2047	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.045
2048	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.127
2049	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.211
2050	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.298
2051	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.387
2052	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.478
2053	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.572
2054	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.669
2055	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.768
2056	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.869
2057	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	3.974
2058	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	4.081
2059	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	4.191
2060	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	4.305
2061	2.5%	4.5%	0.7%	2.9%	6.6%	2.7%	4.421

2.6% = AVERAGE COMPOUND CPI INFLATION MULTILPLIER 2000-2054
2.6% = AVERAGE COMPOUND CPI INFLATION MULTILPLIER 2004-2061

ST. LUCIE UNIT 1 WITH LICENSE EXTENSION

AVERAGE INFLATION RATE ▫ 4.500% 2004-End

	4.500% LABOR HRLY COMP	0.800% MATERIAL PPI INT M&S	2.900% SHIPPING GDP Transp	6.600% BURIAL	2.500% OTHER GDP	TOTAL
2004	**288,631,000**	**91,732,000**	**9,678,000**	**59,222,000**	**73,199,000**	**522,462,000**
2005	305,082,967	97,786,312	9,987,696	63,130,652	75,028,975	551,016,602
2006	316,981,203	98,764,175	10,317,290	67,297,275	76,604,583	569,964,526
2007	329,977,432	96,986,420	10,585,540	71,738,895	78,136,675	587,424,962
2008	344,166,462	96,016,556	10,860,764	76,473,662	79,777,545	607,294,988
2009	359,309,786	95,632,490	11,143,143	81,520,924	81,452,874	629,059,217
2010	375,119,416	95,632,490	11,444,008	86,901,305	83,244,837	652,342,056
2011	391,999,790	96,493,182	11,787,329	92,636,791	85,242,713	678,159,805
2012	409,639,781	97,554,607	12,140,948	98,750,819	87,373,781	705,459,936
2013	427,663,931	98,530,153	12,493,036	105,268,373	89,558,125	733,513,619
2014	446,053,480	99,416,924	12,855,334	112,216,086	91,707,520	762,249,345
2015	465,679,833	100,212,260	13,240,994	119,622,348	93,908,501	792,663,936
2016	487,101,106	101,114,170	13,638,224	127,517,423	96,256,213	825,627,136
2017	509,994,858	102,024,198	14,047,370	135,933,573	98,662,619	860,662,617
2018	533,964,616	103,044,440	14,468,792	144,905,188	101,129,184	897,512,220
2019	559,060,953	104,074,884	14,902,855	154,468,931	103,657,414	936,165,037
2020	585,336,818	105,011,558	15,349,941	164,663,880	106,248,849	976,611,046
2021	612,847,648	105,956,662	15,810,439	175,531,696	108,905,070	1,019,051,516
2022	641,038,640	106,910,272	16,284,752	187,116,788	111,627,697	1,062,978,150
2023	670,526,417	107,872,464	16,773,295	199,466,496	114,418,390	1,109,057,063
2024	700,700,106	108,843,317	17,276,494	212,631,285	117,278,849	1,156,730,051
2025	732,231,611	109,822,906	17,794,789	226,664,950	120,210,821	1,206,725,076
2026	765,182,033	110,811,313	18,310,837	241,624,836	123,216,091	1,259,145,111
2027	799,615,225	111,808,614	18,841,852	257,572,076	126,296,493	1,314,134,260
2028	835,597,910	112,703,083	19,388,265	274,571,833	129,453,906	1,371,714,997
2029	873,199,816	113,604,708	19,950,525	292,693,574	132,690,253	1,432,138,876
2030	912,493,808	114,513,546	20,529,090	312,011,350	136,007,510	1,495,555,303
2031	953,556,029	115,544,168	21,124,434	332,604,099	139,407,697	1,562,236,427
2032	996,466,050	116,468,521	21,737,043	354,555,969	142,892,890	1,632,120,473
2033	1,041,307,023	117,283,801	22,367,417	377,956,663	146,465,212	1,705,380,115
2034	1,088,165,839	118,222,071	23,016,072	402,901,803	150,126,842	1,782,432,627
2035	1,137,133,301	119,049,625	23,683,538	429,493,322	153,880,014	1,863,239,800
2036	1,188,304,300	119,882,973	24,370,361	457,839,881	157,727,014	1,948,124,528
2037	1,241,777,993	120,722,154	25,077,101	488,057,313	161,670,189	2,037,304,751
2038	1,297,658,003	121,567,209	25,804,337	520,269,096	165,711,944	2,131,010,589
2039	1,356,052,613	122,418,179	26,552,663	554,606,856	169,854,743	2,229,485,054
2040	1,417,074,981	123,275,106	27,322,690	591,210,909	174,101,111	2,332,984,797
2041	1,480,843,355	124,138,032	28,115,048	630,230,829	178,453,639	2,441,780,903
2042	1,547,481,306	125,006,998	28,930,384	671,826,063	182,914,980	2,556,159,732
2043	1,617,117,965	125,882,047	29,769,366	716,166,584	187,487,854	2,676,423,816
2044	1,689,888,273	126,763,222	30,632,677	763,433,578	192,175,051	2,802,892,801
2045	1,765,933,245	127,650,564	31,521,025	813,820,194	196,979,427	2,935,904,456
2046	1,845,400,241	128,544,118	32,435,135	867,532,327	201,903,913	3,075,815,734
2047	1,928,443,252	129,443,927	33,375,753	924,789,461	206,951,510	3,223,003,904
2048	2,015,223,199	130,350,035	34,343,650	985,825,565	212,125,298	3,377,867,747
2049	2,105,908,243	131,262,485	35,339,616	1,050,890,052	217,428,431	3,540,828,826
2050	2,200,674,114	132,181,322	36,364,465	1,120,248,796	222,864,141	3,712,332,838
2051	2,299,704,449	133,106,591	37,419,034	1,194,185,216	228,435,745	3,892,851,036
2052	2,403,191,149	134,038,338	38,504,186	1,273,001,441	234,146,639	4,082,881,752
2053	2,511,334,751	134,976,606	39,620,808	1,357,019,536	240,000,305	4,282,952,005
2054	2,624,344,814	135,921,442	40,769,811	1,446,582,825	246,000,312	4,493,619,205
2055	2,742,440,331	136,872,892	41,952,136	1,542,057,291	252,150,320	4,715,472,970
2056	2,865,850,146	137,831,003	43,168,748	1,643,833,073	258,454,078	4,949,137,047
2057	2,994,813,402	138,795,820	44,420,641	1,752,326,055	264,915,430	5,195,271,349
2058	3,129,580,006	139,767,390	45,708,840	1,867,979,575	271,538,316	5,454,574,127
2059	3,270,411,106	140,745,762	47,034,396	1,991,266,227	278,326,774	5,727,784,265
2060	3,417,579,606	141,730,982	48,398,394	2,122,689,798	285,284,943	6,015,683,723
2061	**3,571,370,688**	**142,723,099**	**49,801,947**	**2,262,787,325**	**292,417,066**	**6,319,100,126**

ST. LUCIE UNIT 2 WITH LICENSE EXTENSION

AVERAGE INFLATION RATE = 4.700% 2004-End

	4.500% LABOR HRLY COMP	0.800% MATERIAL PPI INT M&S	2.900% SHIPPING GDP Transp	6.600% BURIAL	2.500% OTHER GDP	TOTAL
2004	**301,098,000**	**66,776,000**	**12,035,000**	**78,777,000**	**56,424,000**	**515,110,000**
2005	318,260,586	71,183,216	12,420,120	83,976,282	57,834,600	543,674,804
2006	330,672,749	71,895,048	12,829,984	89,518,717	59,049,127	563,965,624
2007	344,230,332	70,600,937	13,163,564	95,426,952	60,230,109	583,651,893
2008	359,032,236	69,894,928	13,505,816	101,725,131	61,494,941	605,653,052
2009	374,829,654	69,615,348	13,856,967	108,438,989	62,786,335	629,527,294
2010	391,322,159	69,615,348	14,231,106	115,595,963	64,167,635	654,932,210
2011	408,931,656	70,241,886	14,658,039	123,225,296	65,707,658	682,764,535
2012	427,333,581	71,014,547	15,097,780	131,358,166	67,350,349	712,154,423
2013	446,136,258	71,724,693	15,535,615	140,027,805	69,034,108	742,458,479
2014	465,320,117	72,370,215	15,986,148	149,269,640	70,690,927	773,637,047
2015	485,794,202	72,949,177	16,465,733	159,121,436	72,387,509	806,718,057
2016	508,140,736	73,605,719	16,959,705	169,623,451	74,197,197	842,526,807
2017	532,023,350	74,268,171	17,468,496	180,818,599	76,052,126	880,630,742
2018	557,028,448	75,010,852	17,992,551	192,752,626	77,953,430	920,737,907
2019	583,208,785	75,760,961	18,532,327	205,474,299	79,902,265	962,878,638
2020	610,619,598	76,442,809	19,088,297	219,035,603	81,899,822	1,007,086,129
2021	639,318,719	77,130,795	19,660,946	233,491,953	83,947,318	1,053,549,730
2022	668,727,380	77,824,972	20,250,774	248,902,422	86,046,000	1,101,751,549
2023	699,488,839	78,525,397	20,858,298	265,329,982	88,197,150	1,152,399,666
2024	730,965,837	79,232,125	21,484,047	282,841,760	90,402,079	1,204,925,849
2025	763,859,300	79,945,214	22,128,568	301,509,317	92,662,131	1,260,104,530
2026	798,232,968	80,664,721	22,770,296	321,408,932	94,978,684	1,318,055,602
2027	834,153,452	81,390,704	23,430,635	342,621,921	97,353,152	1,378,949,863
2028	871,690,357	82,041,829	24,110,123	365,234,968	99,786,980	1,442,864,258
2029	910,916,423	82,698,164	24,809,317	389,340,476	102,281,655	1,510,046,035
2030	951,907,662	83,359,749	25,528,787	415,036,947	104,838,696	1,580,671,842
2031	994,743,507	84,109,987	26,269,122	442,429,386	107,459,664	1,655,011,666
2032	1,039,506,965	84,782,867	27,030,927	471,629,725	110,146,155	1,733,096,639
2033	1,086,284,778	85,376,347	27,814,823	502,757,287	112,899,809	1,815,133,045
2034	1,135,167,593	86,059,358	28,621,453	535,939,268	115,722,304	1,901,509,977
2035	1,186,250,135	86,661,773	29,451,476	571,311,260	118,615,362	1,992,290,006
2036	1,239,631,391	87,268,406	30,305,568	609,017,803	121,580,746	2,087,803,914
2037	1,295,414,804	87,879,285	31,184,430	649,212,978	124,620,265	2,188,311,761
2038	1,353,708,470	88,494,440	32,088,778	692,061,034	127,735,771	2,294,088,493
2039	1,414,625,351	89,113,901	33,019,353	737,737,062	130,929,166	2,405,424,833
2040	1,478,283,492	89,737,698	33,976,914	786,427,709	134,202,395	2,522,628,207
2041	1,544,806,249	90,365,862	34,962,245	838,331,937	137,557,455	2,646,023,747
2042	1,614,322,530	90,998,423	35,976,150	893,661,845	140,996,391	2,775,955,339
2043	1,686,967,044	91,635,412	37,019,458	952,643,527	144,521,301	2,912,786,742
2044	1,762,880,561	92,276,860	38,093,022	1,015,518,000	148,134,333	3,056,902,776
2045	1,842,210,186	92,922,798	39,197,720	1,082,542,188	151,837,692	3,208,710,583
2046	1,925,109,645	93,573,257	40,334,454	1,153,989,972	155,633,634	3,368,640,962
2047	2,011,739,579	94,228,270	41,504,153	1,230,153,310	159,524,475	3,537,149,787
2048	2,102,267,860	94,887,868	42,707,773	1,311,343,429	163,512,587	3,714,719,517
2049	2,196,869,914	95,552,083	43,946,299	1,397,892,095	167,600,401	3,901,860,792
2050	2,295,729,060	96,220,948	45,220,741	1,490,152,973	171,790,411	4,099,114,133
2051	2,399,036,867	96,894,494	46,532,143	1,588,503,070	176,085,172	4,307,051,746
2052	2,506,993,526	97,572,756	47,881,575	1,693,344,272	180,487,301	4,526,279,430
2053	2,619,808,235	98,255,765	49,270,141	1,805,104,994	184,999,483	4,757,438,618
2054	2,737,699,606	98,943,555	50,698,975	1,924,241,924	189,624,470	5,001,208,530
2055	2,860,896,088	99,636,160	52,169,245	2,051,241,891	194,365,082	5,258,308,466
2056	2,989,636,412	100,333,613	53,682,153	2,186,623,855	199,224,209	5,529,500,243
2057	3,124,170,050	101,035,949	55,238,936	2,330,941,030	204,204,815	5,815,590,779
2058	3,264,757,703	101,743,200	56,840,865	2,484,783,138	209,309,935	6,117,434,841
2059	3,411,671,799	102,455,403	58,489,250	2,648,778,825	214,542,683	6,435,937,960
2060	3,565,197,030	103,172,591	60,185,438	2,823,598,227	219,906,250	6,772,059,537
2061	3,725,630,897	103,894,799	61,930,816	3,009,955,710	225,403,907	7,126,816,128

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Nuclear Units
Support Schedule : Inflation and Funding Analysis

GENERAL ASSUMPTIONS

JURISDICTIONAL FACTOR =	99.5614%
FPL'S SHARE OF ST. LUCIE 2 COST (NET OF PARTICIPANTS)	85.16123%
CORPORATE TAX RATE	38.575%

	ANNUAL	MONTHLY
EARNINGS RATE QUALIFIED FUND	5.000%	0.407412%
EARNINGS RATE NON-QUALIFIED FUND	5.000%	0.407412%

	TP3	TP4	SL1	SL2
Adjusted QUALIFIED FUNDING % (at 12/31/05)	58.550%	60.570%	66.820%	78.380%
FUND BALANCES ($000's)				
A. QUALIFIED FUND BALANCE 10/31/05	280,691	327,970	363,047	325,455
B. CONTRIBUTIONS Nov.- Dec. 2005	-	-	-	-
C. EARNINGS Estimated Nov.- Dec. 2005	2,297	2,684	2,971	2,663
D.	-	-	-	-
E. QUALIFIED FUND BALANCE 12/31/05	282,988	330,654	366,018	328,118
F. JURISDICTIONAL FACTOR	99.5614%	99.5614%	99.5614%	99.5614%
G. JURIS. QUAL. FUND BAL. 12/31/05	281,747	329,204	364,412	326,678
A. NON-QUALIFIED FUND BALANCE 10/31/05	122,055	131,167	110,758	55,152
B. CONTRIBUTIONS Nov.- Dec. 2005	-	-	-	-
C. EARNINGS Estimated Nov.- Dec. 2005	999	1,073	906	451
D.	-	-	-	-
E. NON-QUALIFIED FUND BALANCE 12/31/05	123,054	132,240	111,664	55,603
F. JURISDICTIONAL FACTOR	99.5614%	99.5614%	99.5614%	99.5614%
G. JURIS. NON-QUAL. FUND BAL. 12/31/05	122,515	131,660	111,174	55,359
Juris. Est/Actual Fund Balance	404,261	460,863	475,587	382,037
Juris. Est/Actual Reserve Balance	481,201	543,546	545,404	416,803
Adjusted/Actual Qualified split	0.5855	0.6057	0.6682	0.7838

Florida Power & Light Company
2005 Decommissioning Study
St Lucie Nuclear Units
Support Schedule : Inflation and Funding Analysis

ST. LUCIE UNIT 1 WITH LICENSE EXTENSION

INFLATION RATE 4.500%

		NOMINAL ANNUAL	NOMINAL MONTHLY
EARNINGS RATE QUALIFIED FUND		5.000%	0.407412%
EARNINGS RATE NON-QUALIFIED FUND		5.000%	0.407412%
CORPORATE TAX RATE		38.575%	
JURISDICTIONAL FACTOR		99.5614%	
Adjusted QUALIFIED %	66.820%		
LICENSE ENDS		1-Mar-36	
MONTHS TO FUND	as of 12/31/05	362	

YEAR	SPENDING CURVE	ESTIMATED COST IN ($2004)	**ESTIMATED COST IN ($2004)**	ESTIMATED COST IN NOMINAL $	JURISDICTIONAL AMOUNT	QUALIFIED AMOUNT	NON-QUAL AMOUNT	TAX SAVINGS	PV @ 5.0% QUALIFIED AMOUNT	PV @ 5.0% NON-QUAL AMOUNT
2005	0.0000%	-	-	-	-	-	-	-	-	-
2006	0.0000%	-	-	-	-	-	-	-	-	-
2007	0.0000%	-	-	-	-	-	-	-	-	-
2008	0.0000%	-	-	-	-	-	-	-	-	-
2009	0.0000%	-	-	-	-	-	-	-	-	-
2010	0.0000%	-	-	-	-	-	-	-	-	-
2035	0.0000%	-	-	-	-	-	-	-	-	-
2036	6.6849%	34,926,000	34,926,000	142,846,678	142,220,152	95,031,506	28,985,626	18,203,020	20,941,093	6,387,257
2037	9.2874%	48,523,000	48,523,000	207,388,767	206,479,159	137,969,374	42,082,135	26,427,650	28,955,104	8,831,616
2038	3.2689%	17,079,000	17,079,000	76,280,989	75,946,420	50,747,398	15,478,499	9,720,523	10,143,011	3,093,727
2039	3.2689%	17,079,000	17,079,000	79,713,633	79,364,009	53,031,031	16,175,032	10,157,946	10,094,711	3,078,995
2040	3.2779%	17,126,000	17,126,000	83,529,984	83,163,621	55,569,932	16,949,424	10,644,266	10,074,289	3,072,766
2041	2.7677%	14,460,000	14,460,000	73,700,603	73,377,352	49,030,747	14,954,902	9,391,703	8,465,522	2,582,075
2042	1.7689%	9,242,000	9,242,000	49,224,918	49,009,017	32,747,825	9,988,437	6,272,755	5,384,909	1,642,455
2043	1.7689%	9,242,000	9,242,000	51,440,039	51,214,423	34,221,478	10,437,917	6,555,029	5,359,267	1,634,634
2044	4.1940%	21,912,000	21,912,000	127,448,180	126,889,192	84,787,358	25,861,051	16,240,782	12,645,862	3,857,123
2045	7.7897%	40,698,000	40,698,000	247,366,552	246,281,602	164,565,367	50,194,198	31,522,038	23,375,800	7,129,869
2046	19.7656%	103,268,000	103,268,000	655,918,628	653,041,769	436,362,510	133,095,235	83,584,024	59,031,819	18,005,337
2047	8.8249%	46,107,000	46,107,000	306,032,362	304,690,104	203,593,928	62,098,326	38,997,850	26,230,965	8,000,725
2048	7.9920%	41,755,000	41,755,000	289,617,812	288,347,548	192,673,832	58,767,580	36,906,136	23,641,927	7,211,041
2049	4.9833%	26,036,000	26,036,000	188,715,396	187,887,690	125,546,555	38,293,043	24,048,093	14,671,538	4,474,976
2050	3.6973%	19,317,000	19,317,000	146,315,064	145,673,326	97,338,916	29,689,411	18,644,998	10,833,482	3,304,328
2051	3.3558%	17,533,000	17,533,000	138,778,402	138,169,720	92,325,007	28,160,115	17,684,598	9,786,144	2,984,879
2052	0.4574%	2,390,000	2,390,000	19,768,779	19,682,073	13,151,561	4,011,367	2,519,145	1,327,640	404,944
2053	0.4563%	2,384,000	2,384,000	20,606,512	20,516,132	13,708,879	4,181,355	2,625,898	1,318,001	402,004
2054	0.4563%	2,384,000	2,384,000	21,533,805	21,439,358	14,325,779	4,369,516	2,744,063	1,311,724	400,090
2055	0.4563%	2,384,000	2,384,000	22,502,826	22,404,129	14,970,439	4,566,144	2,867,546	1,305,478	398,185
2056	0.4574%	2,390,000	2,390,000	23,574,636	23,471,238	15,683,481	4,783,630	3,004,127	1,302,531	397,286
2057	0.4563%	2,384,000	2,384,000	24,573,649	24,465,869	16,348,093	4,986,343	3,131,432	1,293,075	394,402
2058	0.4563%	2,384,000	2,384,000	25,679,463	25,566,833	17,083,758	5,210,729	3,272,346	1,286,917	392,523
2059	0.4563%	2,384,000	2,384,000	26,835,039	26,717,340	17,852,527	5,445,212	3,419,602	1,280,789	390,654
2060	2.8427%	14,852,000	14,852,000	174,701,730	173,935,488	116,223,693	35,449,470	22,262,325	7,941,147	2,422,135
2061	0.8083%	4,223,000	4,223,000	51,909,834	51,682,157	34,534,017	10,533,245	6,614,895	2,247,224	685,427
	100.0000%	522,462,000	522,462,000	3,276,004,277	3,261,635,723	2,179,424,990	664,747,943	417,462,790	300,249,968	91,579,453

	QUALIFIED	NON-QUAL	TOTAL
NPV @12/31/05	300,249,968	91,579,453	391,829,421
LESS BALANCE @ 12/31/05	364,412,359	111,174,238	475,586,597
PV OF FUNDING REQUIREMENTS	(64,162,392)	(19,594,785)	(83,757,177)
MONTHLY FUNDING REQUIREMENT	0	0	0
ANNUAL FUNDING REQUIREMENT	0	0	0
MONTHLY ACCRUAL	0	0	0
ANNUAL ACCRUAL	0	0	0

Florida Power & Light Company
2005 Decommissioning Study
St Lucie Nuclear Units
Support Schedule : Inflation and Funding Analysis

ST. LUCIE UNIT 2 WITH LICENSE EXTENSION

INFLATION RATE 4.700%

	NOMINAL ANNUAL	NOMINAL MONTHLY
EARNINGS RATE QUALIFIED FUND	5.000%	0.407412%
EARNINGS RATE NON-QUALIFIED FUND	5.000%	0.407412%
CORPORATE TAX RATE	38.575%	
FPL'S SHARE OF COST (NET OF PARTICIPANTS)	85.16123%	
JURISDICTIONAL FACTOR	99.5614%	
Adjusted QUALIFIED % 78.380%		
LICENSE ENDS	6-Apr-43	
MONTHS TO FUND as of 12/31/05	447	

YEAR	SPENDING CURVE	ESTIMATED COST IN ($2004)	**ESTIMATED COST IN ($2004)**	ESTIMATED COST IN NOMINAL $	JURISDICTIONAL AMOUNT	QUALIFIED AMOUNT	NON-QUAL AMOUNT	TAX SAVINGS	PV @ 5.0% QUALIFIED AMOUNT	PV @ 5.0% NON-QUAL AMOUNT
2005	0.0000%	-	-	-	-	-	-	-	-	-
2006	0.0000%	-	-	-	-	-	-	-	-	-
2007	0.0000%	-	-	-	-	-	-	-	-	-
2008	0.0000%	-	-	-	-	-	-	-	-	-
2009	0.0000%	-	-	-	-	-	-	-	-	-
2010	0.0000%	-	-	-	-	-	-	-	-	-
2042	0.0000%	-	-	-	-	-	-	-	-	-
2043	6.6392%	34,199,000	34,199,000	205,085,045	173,886,919	136,292,567	23,092,331	14,502,021	21,344,147	3,616,383
2044	17.9333%	92,376,000	92,376,000	579,997,898	491,766,953	385,446,937	65,307,069	41,012,946	57,488,627	9,740,417
2045	21.5948%	111,237,000	111,237,000	731,245,517	620,006,349	485,960,976	82,337,370	51,708,003	69,028,658	11,695,668
2046	10.6482%	54,850,000	54,850,000	377,517,651	320,088,582	250,885,431	42,508,036	26,695,116	33,940,183	5,750,555
2047	9.9800%	51,408,000	51,408,000	370,457,183	314,102,173	246,193,283	41,713,036	26,195,854	31,719,449	5,374,292
2048	9.5465%	49,175,000	49,175,000	371,020,890	314,580,127	246,567,903	41,776,508	26,235,715	30,254,967	5,126,161
2049	6.6557%	34,284,000	34,284,000	270,827,127	229,628,126	179,982,525	30,494,810	19,150,791	21,032,998	3,563,664
2050	5.1094%	26,319,000	26,319,000	217,679,104	184,565,134	144,662,152	24,510,407	15,392,575	16,100,392	2,727,923
2051	4.5988%	23,689,000	23,689,000	205,135,473	173,929,676	136,326,080	23,098,009	14,505,587	14,450,111	2,448,312
2052	0.4514%	2,325,000	2,325,000	21,079,664	17,872,965	14,008,830	2,373,545	1,490,590	1,414,180	239,607
2053	0.4502%	2,319,000	2,319,000	22,013,452	18,664,702	14,629,394	2,478,688	1,556,620	1,406,501	238,306
2054	0.4502%	2,319,000	2,319,000	23,048,084	19,541,943	15,316,975	2,595,187	1,629,781	1,402,482	237,625
2055	0.4502%	2,319,000	2,319,000	24,131,344	20,460,415	16,036,873	2,717,160	1,706,381	1,398,475	236,947
2056	0.4514%	2,325,000	2,325,000	25,330,887	21,477,480	16,834,049	2,852,228	1,791,204	1,398,087	236,881
2057	0.4500%	2,318,000	2,318,000	26,441,590	22,419,219	17,572,184	2,977,291	1,869,744	1,389,896	235,493
2058	0.4500%	2,318,000	2,318,000	27,684,344	23,472,922	18,398,077	3,117,224	1,957,622	1,385,924	234,820
2059	0.4500%	2,318,000	2,318,000	28,985,509	24,576,150	19,262,786	3,263,734	2,049,630	1,381,965	234,149
2060	2.8710%	14,789,000	14,789,000	193,621,234	164,167,016	128,674,107	21,801,519	13,691,390	8,791,839	1,489,619
2061	0.8198%	4,223,000	4,223,000	57,887,119	49,081,164	38,469,817	6,518,020	4,093,327	2,503,337	424,146
	100.0000%	515,110,000	515,110,000	3,779,189,115	3,204,288,015	2,511,520,946	425,532,172	267,234,897	317,832,220	53,850,968

	QUALIFIED	NON-QUAL	TOTAL
NPV @12/31/05	317,832,220	53,850,968	371,683,189
LESS BALANCE @ 12/31/005	326,678,441	55,358,786	382,037,227
PV OF FUNDING REQUIREMENTS	(8,846,221)	(1,507,817)	(10,354,038)
MONTHLY FUNDING REQUIREMENT	0	0	0
ANNUAL FUNDING REQUIREMENT	0	0	0
MONTHLY ACCRUAL	0	0	0
ANNUAL ACCRUAL	0	0	0

SECTION 11

SUPPORT SCHEDULE H
St Lucie Unit No 2 - FPL Ownership Percentage
Cost Allocation Analysis

Florida Power & Light Company
2005 Decommissioning Study
St. Lucie Unit No. 2 - FPL Ownership Percentage
Support Schedule : Cost Allocation Analysis
(thousands 2004 Dollars)

			Base Case	From Pages 2 & 3
				9,789
1	St. Lucie Unit No. 2		515,110	3,856
				21
2	Common Facilities (Note 1)		13,779	113
				13,779
3	St. Lucie Unit No. 2 Excluding Costs of Common Facilities	(L.1 - L.2)	501,331	
4	St. Lucie Unit No. 2 Share of Costs of Common Facilities (Note 2)		11,816	23,632 / 2
5	Total costs Upon Which Allocation to Participants is Computed	(L. 3 + L. 4)	513,147	
6	Participants Share of Total Costs (Note 3)		14.89551%	
7	Total Costs Allocated to Participants	(L. 5 x L. 6)	76,436	
8	Total Costs (line 1 above)		515,110	
9	Percent of Total Applicable to Participants	(L. 7 / L. 8)	14.83877%	
10	Percent of Total Applicable to FPL Ownership	100% - L. 9	85.16123%	

Note:

1 Common (shared) facilities that are expected to be decommissioned at the same time as St. Lucie Unit No. 2 and are included with the decommissioning costs of Unit No. 2.

2 The Participants share of the common facilities has been calculated in compliance with the Participation Agreement which provides that the Participants pay for only their ownership share times one-half of the common facility costs.

3 Allocation is based on ownership share of 8.80600% for Florida Municipal Power Agency and 6.08951% for Orlando Utilities Commission. (Total = 14.89551%)

TABLE 3.5
SUMMARY OF COSTS
SHARED SYSTEMS and STRUCTURES
(thousands, 2004 dollars)

	UNIT 1	UNIT 2	TOTAL
STRUCTURES			
Contaminated Soil	$2,589	$1,110	$3,699
Mixed/Hazardous Waste	$5,418	5,418	$10,837
Shared Miscellaneous Site Structures	$0	$2,310	$2,310
Steam Generator Blowdown Treatment Facility	$0	$951	$951
Subtotal	$8,008	$9,789	$17,796
SYSTEMS			
Auxiliary Steam - Insulated	$21	$15	$36
Condensate Polish Filter Demin	$22	$0	$22
Condensate Polish Filter Demin - Ins	$64	$0	$64
Demineralized Makeup Water - RCA	$29	$15	$44
Demineralized Makeup Water	$14	$5	$19
Domestic/Makeup/Service Water	$161	$8	$169
Domestic/Makeup/Service Water-Ins	$3	$1	$4
Domestic/Makeup/Service Water-Ins-RCA	$30	$0	$30
Domestic/Makeup/Service Water - RCA	$263	$58	$321
Fire Protection	$63	$48	$111
Fire Protection - Insulated	$6	$5	$11
Fire Protection - Insulated - RCA	$6	$16	$21
Fire Protection - RCA	$71	$179	$250
Neutralization Basin Recirculation	$16	$0	$16
Primary Water	$605	$570	$1,175
Primary Water - Insulated	$5	$6	$11
Service & Instrument Air	$23	$18	$41
Service & Instrument Air - Ins	$12	$9	$21
Service & Instrument Air - Ins - RCA	$136	$93	$230
Service & Instrument Air - Ins	$12	$9	$21
SGBTF Blowdown - Insulated	$22	$2,014	$2,036
SGBTF Demin - Ins - RCA	$0	$110	$110
SGBTF Demin - RCA	$0	$229	$229
SGBTF HVAC	$52	$0	$52
SGBTF Misc - RCA	$17	$0	$17

TABLE 3.5 (continued)
SUMMARY OF COSTS
SHARED SYSTEMS and STRUCTURES
(thousands, 2004 dollars)

	UNIT 1	UNIT 2	TOTAL
SYSTEMS			
SGBTF Miscellaneous - RCA	$0	$87	$87
SGBTF Waste Management	$10	$192	$202
SGBTF Waste Management - Insulated	$90	$127	$218
Sodium Hypochlorite	$0	$41	$41
Water Treatment - Insulated	$35	$0	$35
Water Treatment	$61	$0	$61
Subtotal	$1,846	$3,856	$5,702
MISCELLANEOUS COMPONENTS			
Shared Refueling Equipment (20)			
Valves & Piping for Cond Storage Tank Interconnection			
Turbine Lube Oil Storage Tank			
Waste Oil Storage Tank			
Miscellaneous Small Bore Piping			
Valves & Piping for Holdup Tanks Interconnection			
Valves & Piping for Aerated Waste Strge Tank Interconnect			
SGBTF Electrical (9)			
Tank,Valves, Piping - UHS Valves & Emergency Air			
Piping for Waste Management System Interconnects			
Clean Miscellaneous Components			$21
Contaminated Miscellaneous Component			$113
TOTAL			**$23,632**

SECTION 12

DECOMMISSIONING COST ANALYSIS FOR THE ST LUCIE NUCLEAR PLANT UNITS 1 AND 2

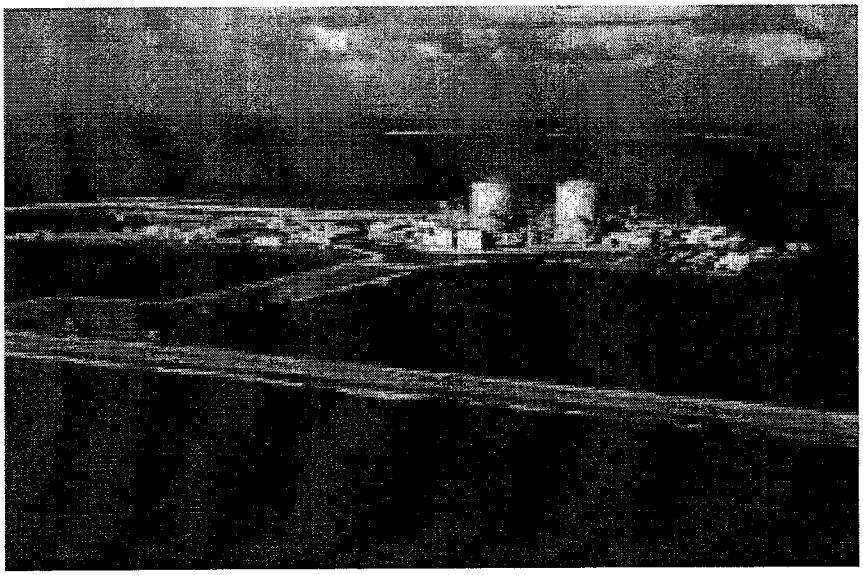
Prepared By

TLG SERVICES, INC.

DECOMMISSIONING COST ANALYSIS

for the

ST. LUCIE NUCLEAR PLANT, UNITS 1 and 2



prepared for the

Florida Power & Light Company

prepared by

TLG Services, Inc.
Bridgewater, Connecticut

October 2005

APPROVALS

Project Manager	William A. Cloutier, Jr.	10-18-05 **Date**
Project Engineer	Mark S. Houghton	10-18-05 **Date**
Technical Manager	Francis W. Seymore	10/18/05 **Date**
Quality Assurance Manager	Thomas L. Williamson	10/19/05 **Date**

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

SECTION **PAGE**

TABLES

TABLE OF CONTENTS
(continued)

SECTION **PAGE**

FIGURES

APPENDICES

REVISION LOG

No.	CRA No.	Date	Item Revised	Reason for Revision
0		10-18-05		Original Issue

EXECUTIVE SUMMARY

This report presents estimates of the cost to decommission the St. Lucie Nuclear Plant, Units 1 and 2 (St. Lucie) for the identified decommissioning scenarios following the scheduled cessation of plant operations. The analysis relies upon site-specific, technical information from an evaluation for the Florida Power & Light Company (FPL) in 1999,[1] updated to reflect current assumptions pertaining to the disposition of the nuclear units and relevant industry experience in undertaking such projects. The updated estimates are designed to provide FPL with sufficient information to assess its financial obligations, as they pertain to the eventual decommissioning of the nuclear station.

The primary goal of the decommissioning is the removal and disposal of the contaminated systems and structures so that the plant's operating licenses can be terminated. The analysis recognizes that spent fuel will be stored at the site in the plant's storage pools and/or in an independent spent fuel storage installation (ISFSI) until such time that it can be transferred to a U.S. Department of Energy (DOE) facility. Consequently, the estimates also include those costs to manage and subsequently decommission these storage facilities.

The estimates are based on numerous fundamental assumptions, including regulatory requirements, project contingencies, low-level radioactive waste disposal practices, high-level radioactive waste management options, and site restoration requirements. The estimates incorporate a minimum cooling period for the spent fuel that resides in the storage pools when operations cease. The prompt decommissioning scenario assumes that the dismantling of Unit 1 will be delayed so as to sequence decommissioning operations with the longer running Unit 2 (there is a seven year offset in plant shutdown dates). The estimates also include the dismantling of non-essential structures and limited restoration of the site.

Alternatives and Regulations

The Nuclear Regulatory Commission (NRC or Commission) provided initial decommissioning requirements in its rule adopted on June 27, 1988.[2] In this rule, the NRC set forth financial criteria for decommissioning licensed nuclear power

---

1 "Decommissioning Cost Study for the St. Lucie Plant, Units 1 and 2," Document No. F02-1297-002, Rev. 1, TLG Services, Inc., October 1999.

2 U.S. Code of Federal Regulations, Title 10, Parts 30, 40, 50, 51, 70 and 72 "General Requirements for Decommissioning Nuclear Facilities," Nuclear Regulatory Commission, Federal Register Volume 53, Number 123 (p 24018 et seq.), June 27, 1988.

facilities. The regulations addressed planning needs, timing, funding methods, and environmental review requirements for decommissioning. The rule also defined three decommissioning alternatives as being acceptable to the NRC: DECON, SAFSTOR, and ENTOMB.

> DECON is defined as "the alternative in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations."[3]
>
> SAFSTOR is defined as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use."[4] Decommissioning is to be completed within 60 years, although longer time periods will be considered when necessary to protect public health and safety.
>
> ENTOMB is defined as "the alternative in which radioactive contaminants are encased in a structurally long-lived material, such as concrete; the entombed structure is appropriately maintained and continued surveillance is carried out until the radioactive material decays to a level permitting unrestricted release of the property."[5] As with the SAFSTOR alternative, decommissioning is currently required to be completed within 60 years.

The 60-year restriction has limited the practicality for the ENTOMB alternative at commercial reactors that generate significant amounts of long-lived radioactive material. In 1997, the Commission directed its staff to re-evaluate this alternative and identify the technical requirements and regulatory actions that would be necessary for entombment to become a viable option. The resulting evaluation provided several recommendations, however, rulemaking has been deferred pending the completion of additional research studies, *e.g.*, on engineered barriers.

In 1996, the NRC amended its decommissioning regulations to clarify ambiguities and codify procedures and terminology as a means of enhancing efficiency and

---

3 Ibid. Page FR24022, Column 3.
4 Ibid.
5 Ibid. Page FR24023, Column 2.

uniformity in the decommissioning process.[6] The amendments allow for greater public participation and better define the transition process from operations to decommissioning. Regulatory Guide 1.184, issued in July 2000, further described the methods and procedures acceptable to the NRC staff for implementing the requirements of the 1996 amendments relating to the initial activities and major phases of the decommissioning process. The costs and schedules presented in this analysis follow the general guidance and processes described in the amended regulations.

Decommissioning Scenarios

Two decommissioning scenarios were evaluated for the St. Lucie units. The scenarios selected are representative of alternatives available to the owner and are defined as follows:

1. DECON: The operating licenses for Units 1 and 2 currently expire in March 2036 and April 2043, respectively. The first scenario assumes that decommissioning activities at the two units are sequenced and integrated so as to minimize the total duration of the physical dismantling processes. As such, Unit 1 is placed into an abbreviated period of safe-storage until Unit 2 completes its operations. Unit 1 is reactivated shortly after decommissioning operations commence at Unit 2 and follows a similar dismantling sequence. Any residual spent fuel is transferred to the ISFSI so as to facilitate decontamination and dismantling activities within the fuel handling buildings. Spent fuel storage operations continue at the site until the transfer of the fuel to the DOE is complete, assumed to be in the year 2060.

2. SAFSTOR: The units are placed into safe-storage shortly after the permanent cessation of operations and defueling. Spent fuel remaining in the spent fuel storage pools after a minimum cooling period is transferred to the ISFSI for interim storage, consistent with the DECON spent fuel management plan. Decommissioning is deferred beyond the fuel storage period to the maximum extent possible; termination of the licenses would conclude within the required 60-year period. As with the DECON scenario, decommissioning activities at the two units are sequenced and integrated so as to minimize the total duration of the physical dismantling processes.

---

6 U.S. Code of Federal Regulations, Title 10, Parts 2, 50, and 51, "Decommissioning of Nuclear Power Reactors," US NRC, Federal Register Volume 61, (p 39278 et seq.), July 29, 1996.

Methodology

The methodology used to develop the estimate described within this document follows the basic approach originally presented in the cost estimating guidelines developed by the Atomic Industrial Forum (now Nuclear Energy Institute).[7] This reference describes a unit factor method for determining decommissioning activity costs. The unit factors used in this analysis incorporate site-specific costs and the latest available information on worker productivity in decommissioning.

An activity duration critical path is used to determine the total decommissioning program schedule. The schedule is relied upon in calculating the carrying costs, which include program management, administration, field engineering, equipment rental, and support services such as quality control and security. This systematic approach for assembling decommissioning estimates ensures a high degree of confidence in the reliability of the resulting costs.

Contingency

Consistent with cost estimating practice, contingencies are applied to the decontamination and dismantling costs developed as "specific provision for unforeseeable elements of cost within the defined project scope, particularly important where previous experience relating estimates and actual costs has shown that unforeseeable events which will increase costs are likely to occur."[8] The cost elements in the estimates are based on ideal conditions; therefore, the types of unforeseeable events that are almost certain to occur in decommissioning, based on industry experience, are addressed through a percentage contingency applied on a line-item basis. This contingency factor is a nearly universal element in all large-scale construction and demolition projects. It should be noted that contingency, as used in this analysis, does not account for price escalation and inflation in the cost of decommissioning over the remaining operating life of the station.

The use and role of contingency within decommissioning estimates is not a safety factor issue. Safety factors provide additional security and address situations that may never occur. Contingency funds, by contrast, are expected to be fully expended throughout the program. Inclusion of contingency is necessary to provide assurance that sufficient funding will be available to accomplish the intended tasks.

---

7 T.S. LaGuardia et al., "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," AIF/NESP-036, May 1986.

8 Project and Cost Engineers' Handbook, Second Edition, American Association of Cost Engineers, Marcel Dekker, Inc., New York, New York, p. 239.

Low-Level Radioactive Waste Disposal

The contaminated and activated material generated in the decontamination and dismantling of a commercial nuclear reactor is classified as low-level (radioactive) waste, although not all of the material is suitable for "shallow-land" disposal. With the passage of the "Low-Level Radioactive Waste Policy Act" in 1980,[9] and its Amendments of 1985,[10] the states became ultimately responsible for the disposition of low-level radioactive waste generated within their own borders.

FPL is currently able to access the disposal facility in Barnwell, South Carolina. However, in June 2000, South Carolina formally joined with Connecticut and New Jersey to form the Atlantic Compact. The legislation provides for South Carolina to gradually limit access to the Barnwell facility, with only Atlantic Compact members having access to the facility after mid-year 2008. Despite the closing of one of the two currently accessible commercial disposal sites, it is reasonable to assume that additional disposal capacity will be available to support reactor decommissioning, particularly for the isolation of the more highly radioactive material that is not suitable for disposal elsewhere. However, for estimating purposes, and as a proxy for future disposal facilities, waste disposal costs are estimated using available pricing schedules for the currently operating facilities, *i.e.*, at Barnwell and the Envirocare facility in Utah.

High-Level Radioactive Waste Management

Congress passed the "Nuclear Waste Policy Act"[11] (NWPA) in 1982, assigning the responsibility for disposal of the spent nuclear fuel created by the commercial nuclear generating plants to the DOE. Two permanent disposal facilities were envisioned, as well as an interim storage facility. To recover the cost, the legislation created a Nuclear Waste Fund through which money is collected from the sale of electricity generated by the power plants. The NWPA, along with the individual disposal contracts with the utilities, specified that the DOE was to begin accepting spent fuel by January 31, 1998.

Since the original legislation, the DOE has announced several delays in the program schedule. By January 1998, the DOE had failed to initiate the disposal of spent nuclear fuel and high level waste, as required by the NWPA and the utility contracts. As a result, utilities have initiated legal action against the DOE. While

---

9 "Low-Level Radioactive Waste Policy Act of 1980," Public Law 96-573, 1980.
10 "Low-Level Radioactive Waste Policy Amendments Act of 1985," Public Law 99-240, 1986.
11 "Nuclear Waste Policy Act of 1982 and Amendments," U.S. Department of Energy's Office of Civilian Radioactive Management, 1982.

legal actions continue, the DOE has no plans to receive spent fuel prior to completing the construction of its geologic repository.

Operation of DOE's yet-to-be constructed repository is contingent upon the review and approval of the facility's license application by the NRC, the successful resolution of pending litigation, and the development of a national transportation system. For comparison, the Private Fuel Storage consortium submitted an application for an interim storage facility in 1997. It was eight years before the NRC issued a license for the facility. With a more technically complex and politically sensitive application for permanent disposal, it is not unreasonable to expect that the NRC's approval to construct the repository at Yucca Mountain would require at least as long a review period. The DOE has no plans for receiving spent fuel from commercial nuclear plant sites prior to the opening of the repository and startup operations may be phased in, creating additional delays. As such, for estimating purposes, FPL has assumed that the high-level waste repository, or some interim storage facility, will not be fully operational until 2015, at the earliest. This timetable is consistent with the findings of an evaluation issued to Congress by the Government Accounting Office.[12]

The NRC requires that licensees establish a program to manage and provide funding for the caretaking of all irradiated fuel at the reactor site until title of the fuel is transferred to the DOE.[13] The fuel will be stored in the storage pools and/or an ISFSI located on the St. Lucie site until the DOE has completed the transfer.

The ISFSI will be operational prior to the cessation of plant operations. The facility is expanded following plant shutdown to accommodate the inventory of spent fuel residing in the plant's storage pools at the conclusion of the required cooling period. Once emptied, the fuel handling buildings can be either decontaminated and dismantled or prepared for long-term storage. The ISFSI will be independently licensed once the plant's operating license is terminated.

The DOE's generator allocation/receipt schedules are based upon the oldest fuel receiving the highest priority. Given this scenario and an anticipated rate of transfer, spent fuel is projected to remain at the site for approximately 17 years after the cessation of Unit 2 operations. Consequently, costs are included within the estimates for the long-term caretaking of the spent fuel at the St. Lucie site until the year 2060 in both the DECON and SAFSTOR scenarios.

---

12 "Technical, Schedule, and Cost Uncertainties of the Yucca Mountain Repository Project," GAO-02-191, December 2001.

13 "Domestic Licensing of Production and Utilization Facilities," U.S. Code of Federal Regulations, Title 10, Part 50.54 (bb).

Site Restoration

The efficient removal of the contaminated materials at the site may result in damage to many of the site structures. Blasting, coring, drilling, and the other decontamination activities will substantially damage power block structures, potentially weakening the footings and structural supports. Prompt demolition once the license is terminated is clearly the most appropriate and cost-effective option. It is unreasonable to anticipate that these structures would be repaired and preserved after the radiological contamination is removed. The cost to dismantle site structures with a work force already mobilized is more efficient and less costly than if the process were deferred. Experience at shutdown generating stations has shown that plant facilities quickly degrade without maintenance, adding additional expense and creating potential hazards to the public and the demolition work force. Consequently, this analysis assumes that non-essential site structures within the restricted access area are removed to a nominal depth of three feet below the local grade level wherever possible. The site is then graded and stabilized.

Summary

The costs to decommission St. Lucie were evaluated for the identified decommissioning scenarios, incorporating the attributes of both the DECON and SAFSTOR decommissioning alternatives. Regardless of the timing of the decommissioning activities, the estimates assume the eventual removal of all the contaminated and activated plant components and structural materials, such that the facility operator may then have unrestricted use of the site with no further requirement for an NRC license. Delayed decommissioning is initiated after the spent fuel has been removed from the site and is accomplished within the 60-year period required by current NRC regulations. In the interim, the spent fuel remains in storage at the site until such time that the transfer to a DOE facility can be completed. Once the transfer is complete, the storage facilities are also decommissioned.

The scenarios analyzed for the purpose of generating the estimates are described in Section 2. The assumptions are presented in Section 3, along with schedules of annual expenditures. The major cost contributors are identified in Section 6, with detailed activity costs, waste volumes, and associated manpower requirements delineated in Appendices C and D. Cost summaries for the scenarios are provided at the end of this section for the major cost components.

SUMMARY OF DECOMMISSIONING COST ELEMENTS
DECON
(thousands of 2004 dollars)

Cost Element	Unit 1	Unit 2	Total
Decontamination	9,286	13,672	22,958
Removal	69,937	78,564	148,502
Packaging	10,661	12,018	22,679
Transportation	9,679	12,037	21,716
Waste Disposal	54,893	71,142	126,035
Off-site Waste Processing	16,751	20,058	36,809
Program Management [1]	219,766	231,463	451,229
Spent Fuel Pool Isolation	9,612	6,408	16,020
ISFSI Related	56,636	20,844	77,479
Insurance and Regulatory Fees	16,681	11,683	28,364
Energy	7,973	5,316	13,289
Characterization and Licensing Surveys	9,526	10,352	19,878
Property Taxes	17,894	12,802	30,696
Miscellaneous Equipment	7,347	5,910	13,257
Fixed Overhead	5,820	2,841	8,661
Total [2]	522,462	515,110	1,037,572
NRC License Termination	363,465	419,483	782,948
Spent Fuel Management [3]	121,407	46,715	168,122
Site Restoration	37,590	48,912	86,502

[1] Includes engineering and security
[2] Columns may not add due to rounding
[3] Includes "ISFSI Related" capital and loading costs as well as the associated period-dependent expenditures, *e.g.*, program management, security, fees and taxes

SUMMARY OF DECOMMISSIONING COST ELEMENTS
SAFSTOR
(thousands of 2004 dollars)

Cost Element	Unit 1	Unit 2	Total
Decontamination	8,767	9,264	18,030
Removal	69,065	79,848	148,913
Packaging	8,758	8,843	17,601
Transportation	8,181	8,344	16,526
Waste Disposal	46,193	47,504	93,697
Off-site Waste Processing	21,112	24,146	45,258
Program Management [1]	230,040	317,002	547,042
Spent Fuel Pool Isolation	9,612	6,408	16,020
ISFSI Related	55,373	19,588	74,961
Insurance and Regulatory Fees	18,983	17,240	36,223
Energy	11,679	11,067	22,746
Characterization and Licensing Surveys	9,526	11,753	21,279
Property Taxes	37,023	32,892	69,915
Miscellaneous Equipment	14,760	15,384	30,144
Fixed Overhead	7,568	6,780	14,348
Total [2]	556,639	616,063	1,172,702
NRC License Termination	434,904	521,517	956,421
Spent Fuel Management [3]	84,677	40,730	125,407
Site Restoration	37,058	53,816	90,874

[1] Includes engineering and security
[2] Columns may not add due to rounding
[3] Includes "ISFSI Related" capital and loading costs as well as the associated period-dependent expenditures, *e.g.*, program management, security, fees and taxes

1. INTRODUCTION

This report presents estimates of the cost to decommission the St. Lucie Nuclear Plant, Units 1 and 2 (St. Lucie), for the scenarios described in Section 2, following a scheduled cessation of plant operations. The analysis is designed to provide the Florida Power & Light Company (FPL) with sufficient information to assess its financial obligations, as they pertain to the eventual decommissioning of the nuclear station. It is not a detailed engineering document, but a financial analysis prepared in advance of the detailed engineering that will be required to carry out the decommissioning.

1.1 OBJECTIVES OF STUDY

The objectives of this study are to prepare comprehensive estimates of the cost to decommission the St. Lucie nuclear units, to provide a sequence or schedule for the associated activities, and to develop waste stream projections from the decontamination and dismantling activities. For the purposes of this study, the cessation of operations is assumed to be on March 1, 2036 and April 6, 2043 for Units 1 and 2, respectively. These dates were used to schedule the decommissioning activities.

1.2 SITE DESCRIPTION

The St. Lucie site is located approximately halfway between the cities of Fort Pierce and Stuart on the east coast of Florida. Units 1 and 2 are essentially identical pressurized water reactors with supporting facilities. FPL is the primary owner and operator of the station. The nuclear units were designed and constructed by Ebasco Services, Inc.

The nuclear steam supply systems (NSSS) were designed by Combustion Engineering. The reactor coolant systems (RCS) consist of two similar heat transfer loops connected in parallel to the reactor pressure vessel. Each loop contains two reactor coolant pumps, one steam generator, and associated piping and valves. In addition, the systems include a pressurizer, a pressurizer relief tank, interconnecting piping, and instrumentation necessary for operational control. All the system equipment, except for the digital pressure indicator, three wide range pressure transmitters, and the containment isolation and process actuated valves located in the lines connected to the pressurizer relief tank, are located in the containment

buildings. Each reactor is designed to produce a core thermal power output of 2,700 megawatts thermal (MWt).

The containments are a dual containment design comprised of a steel containment vessel surrounded by an annular space and enclosed by reinforced concrete shield buildings. The vessel is cylindrical in shape with a hemispherical dome and ellipsoidal bottom.

Heat produced in the reactors is converted to electrical energy by the steam and power conversion system. The function of the turbine generators, which serve no safety function, is to receive steam from steam generators, economically convert a portion of the thermal energy contained in the steam to electrical energy, and provide extraction steam for five stages of feedwater heating. Steam is directed from the high pressure turbine element to four combination moisture-separator/reheater assemblies before entering the low pressure turbines. The exhaust steam from the two low pressure turbines is condensed in the condenser. Each power conversion system is designed to produce 890 MWe net electrical output at rated power.

Heat rejected in the main condensers is removed by the circulating water systems, which condenses the steam exhaust from the turbine. Cooling water for the condenser is supplied by the Atlantic Ocean.

1.3 REGULATORY GUIDANCE

The Nuclear Regulatory Commission (NRC or Commission) provided initial decommissioning requirements in its rule "General Requirements for Decommissioning Nuclear Facilities," issued in June 1988.[1]* This rule set forth financial criteria for decommissioning licensed nuclear power facilities. The regulation addressed decommissioning planning needs, timing, funding methods, and environmental review requirements. The intent of the rule was to ensure that decommissioning would be accomplished in a safe and timely manner and that adequate funds would be available for this purpose. Subsequent to the rule, the NRC issued Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors,"[2] which provided additional guidance to the licensees of nuclear facilities on the financial methods acceptable to the NRC staff for complying with the requirements of the rule. The regulatory guide addressed the funding requirements and provided guidance on the content and form of the financial assurance mechanisms indicated in the rule.

---

*Annotated references for citations in Sections 1-6 are provided in Section 7.

The rule defined three decommissioning alternatives as being acceptable to the NRC: DECON, SAFSTOR, and ENTOMB. The DECON alternative assumes that any contaminated or activated portion of the plant's systems, structures, and facilities are removed or decontaminated to levels that permit the site to be released for unrestricted use shortly after the cessation of plant operations. The rule also placed limits on the time allowed to complete the decommissioning process. For SAFSTOR, the process is restricted in overall duration to 60 years, unless it can be shown that a longer duration is necessary to protect public health and safety. The guidelines for ENTOMB are similar, providing the NRC with both sufficient leverage and flexibility to ensure that these deferred options are only used in situations where it is reasonable and consistent with the definition of decommissioning. At the conclusion of a 60-year dormancy period (or longer for ENTOMB if the NRC approves such a case), the site would still require significant remediation to meet the unrestricted release limits for license termination.

The ENTOMB alternative has not been viewed as a viable option for power reactors due to the significant time required to isolate the long-lived radionuclides for decay to permissible levels. However, with recent rulemaking permitting the controlled release of a site, the NRC has re-evaluated this alternative.[3] The resulting feasibility study, based upon an assessment by Pacific Northwest National Laboratory, concluded that the method did have conditional merit for some, if not most, reactors. However, the staff also found that additional rulemaking would be needed before this option could be treated as a generic alternative. The NRC had considered rulemaking to alter the 60-year time for completing decommissioning and to clarify the use of engineered barriers for reactor entombments.[4] However, the NRC staff has recommended that rulemaking be deferred, based upon several factors, *e.g.*, no licensee has committed to pursuing the entombment option, the unresolved issues associated with the disposition of greater-than-Class C material (GTCC), and the NRC's current priorities, at least until after the additional research studies are complete. The Commission concurred with the staff's recommendation.

The NRC published revisions to the general requirements for decommissioning nuclear power plants in 1996.[5] When the regulations were originally adopted in 1988, it was assumed that the majority of licensees would decommission at the end of the facility's operating licensed life. Since that time, several licensees permanently and prematurely ceased operations. Exemptions from certain operating requirements were required once the reactor was defueled to facilitate the decommissioning. Each case was

handled individually, without clearly defined generic requirements. The NRC amended the decommissioning regulations in 1996 to clarify ambiguities and codify procedures and terminology as a means of enhancing efficiency and uniformity in the decommissioning process. The new amendments allow for greater public participation and better define the transition process from operations to decommissioning.

Under the revised regulations, licensees will submit written certification to the NRC within 30 days after the decision to cease operations. Certification will also be required once the fuel is permanently removed from the reactor vessel. Submittal of these notices will entitle the licensee to a fee reduction and eliminate the obligation to follow certain requirements needed only during operation of the reactor. Within two years of submitting notice of permanent cessation of operations, the licensee is required to submit a Post-Shutdown Decommissioning Activities Report (PSDAR) to the NRC. The PSDAR describes the planned decommissioning activities, the associated sequence and schedule, and an estimate of expected costs. Prior to completing decommissioning, the licensee is required to submit an application to the NRC to terminate the license, which will include a License Termination Plan (LTP).

1.3.1 Nuclear Waste Policy Act

Congress passed the Nuclear Waste Policy Act[6] (NWPA) in 1982, assigning the responsibility for disposal of the spent nuclear fuel created by the commercial nuclear generating plants to the U.S. Department of Energy (DOE). Two permanent disposal facilities and an interim storage facility were envisioned. To recover the cost, the legislation created a Nuclear Waste Fund through which money is collected from the sale of electricity generated by the power plants. The NWPA, along with the individual disposal contracts with the utilities, specified that the DOE was to begin accepting spent fuel by January 31, 1998.

After pursuing a national site selection process, the NWPA was amended in 1987 to designate Yucca Mountain, Nevada, as the only site to be evaluated for geologic disposal of high-level waste. Also in 1987, the DOE announced a five-year delay (1998 to 2003) in the opening date for the repository. Two years later, in 1989, an additional seven-year delay was announced, primarily due to problems in obtaining the permits necessary from the state of Nevada to perform

the required characterization of the site. In 2005, the DOE delayed the projected opening of Yucca Mountain to 2012.

Generators have responded to this impasse by initiating legal action against the DOE and constructing supplemental storage as a means of maintaining necessary fuel storage operating margins. In an August 2000 ruling,[7] the U.S. Court of Appeals for the Federal Circuit reaffirmed the utility position that DOE had breached its contractual obligation. Legal actions seeking the recovery of damages for DOE's failure to begin spent fuel disposal continue; however, the DOE has no plans to receive spent fuel from the commercial reactors until the repository is operational.

The NRC requires that licensees establish a program to manage and provide funding for the management of all irradiated fuel at the reactor until title of the fuel is transferred to the Secretary of Energy, pursuant to Title 10 of the Code of Federal Regulations (10 CFR), §50.54 (bb).[8] This funding requirement is fulfilled through inclusion of certain high-level waste cost elements in the decommissioning estimates, as identified in Section 3.

With the delays in developing a national waste management system, the plant's existing fuel storage facilities need to be supplemented to support long-term plant operations. This analysis assumes that an independent spent fuel storage installation (ISFSI) is constructed at the site prior to shutdown to support plant operations. The cost for the initial construction of the ISFSI is not included in the estimates, however, it is expected that this facility can be augmented to support decommissioning. As such, only the cost to expand the facility is included as a decommissioning expense.

For estimating purposes, the DOE is assumed to commence geologic repository operations in 2015, with the first assemblies from St. Lucie being received in 2017. The DOE's generator allocation/receipt schedules are based upon the oldest fuel receiving the highest priority. Given this scenario, an anticipated rate of transfer and the sharing of allocations with Turkey Point, spent fuel is projected to remain on the St. Lucie site for 17 years after the cessation of Unit 2 operations in 2043. Consequently, costs are included within the estimate for the long-term caretaking of the spent fuel at the site until the year 2060.

1.3.2 Low-Level Radioactive Waste Acts

The contaminated and activated material generated in the decontamination and dismantling of a commercial nuclear reactor is classified as low-level (radioactive) waste, although not all of the material is suitable for "shallow-land" disposal. Congress passed the "Low-Level Radioactive Waste Policy Act" in 1980,[9] declaring the states as being ultimately responsible for the disposition of low-level radioactive waste generated within their own borders. The federal law encouraged the formation of regional groups or compacts to implement this objective safely, efficiently, and economically, and set a target date of 1986 for implementation. After little progress, the "Low-Level Radioactive Waste Policy Amendments Act of 1985,"[10] extended the implementation schedule, with specific milestones and stiff sanctions for non-compliance. However, with the sanctions negated, no new compact facilities have been successfully sited, licensed, and constructed.

FPL is currently able to access the disposal facility in Barnwell, South Carolina. However, in June 2000, South Carolina formally joined with Connecticut and New Jersey to form the Atlantic Compact. The legislation provides for South Carolina to gradually limit access to the Barnwell facility, with only Atlantic Compact members having access to the facility after mid-year 2008. Despite the closing of one of the two currently accessible commercial disposal sites, it is reasonable to assume that additional disposal capacity will be available to support reactor decommissioning, particularly for the isolation of the more highly radioactive material that is not suitable for disposal elsewhere. However, for estimating purposes, and as a proxy for future disposal facilities, waste disposal costs are estimated using available pricing schedules for the currently operating facilities, *i.e.*, at Barnwell and the Envirocare facility in Utah.

1.3.3 Radiological Criteria for License Termination

In 1997, the NRC published Subpart E, "Radiological Criteria for License Termination,"[11] amending 10 CFR §20. This subpart provides radiological criteria for releasing a facility for unrestricted use. The regulation states that the site can be released for unrestricted use if radioactivity levels are such that the average member of a critical group would not receive a Total Effective Dose Equivalent (TEDE) in

excess of 25 millirem per year, and provided that residual radioactivity has been reduced to levels that are As Low As Reasonably Achievable (ALARA). The decommissioning estimates assume that the St. Lucie site will be remediated to a residual level consistent with the NRC-prescribed level.

It should be noted that the NRC and the Environmental Protection Agency (EPA) differ on the amount of residual radioactivity considered acceptable in site remediation. The EPA has two limits that apply to radioactive materials. An EPA limit of 15 millirem per year is derived from criteria established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund).[12] An additional and separate limit of 4 millirem per year, as defined in 40 CFR §141.16, is applied to drinking water.[13]

On October 9, 2002, the NRC signed an agreement with the EPA on the radiological decommissioning and decontamination of NRC-licensed sites. The Memorandum of Understanding (MOU)[14] provides that EPA will defer exercise of authority under CERCLA for the majority of facilities decommissioned under NRC authority. The MOU also includes provisions for NRC and EPA consultation for certain sites when, at the time of license termination, (1) groundwater contamination exceeds EPA-permitted levels; (2) NRC contemplates restricted release of the site; and/or (3) residual radioactive soil concentrations exceed levels defined in the MOU.

The MOU does not impose any new requirements on NRC licensees and should reduce the involvement of the EPA with NRC licensees who are decommissioning. Most sites are expected to meet the NRC criteria for unrestricted use, and the NRC believes that only a few sites will have groundwater or soil contamination in excess of the levels specified in the MOU that trigger consultation with the EPA. However, if there are other hazardous materials on the site, the EPA and the Florida Department of Environmental Protection may be involved in the cleanup. As such, the possibility of dual regulation remains for certain licensees. The present study does not include any costs for this occurrence.

2. DECOMMISSIONING ALTERNATIVES

Detailed cost estimates were developed to decommission the St. Lucie nuclear units utilizing a combination of the approved decommissioning alternatives: DECON and SAFSTOR. Although the alternatives differ with respect to technique, process, cost, and schedule, they attain the same result: the ultimate release of the site for unrestricted use.

The following sections describe the basic activities associated with each alternative. Although detailed procedures for each activity identified are not provided, and the actual sequence of work may vary, the activity descriptions provide a basis not only for estimating but also for the expected scope of work, *i.e.*, engineering and planning at the time of decommissioning.

The conceptual approach that the NRC has described in its regulations divides decommissioning into three phases. The initial phase commences with the effective date of permanent cessation of operations and involves the transition of both plant and licensee from reactor operations (*i.e.*, power production) to facility de-activation and closure. During the first phase, notification is to be provided to the NRC certifying the permanent cessation of operations and the removal of fuel from the reactor vessel. The licensee is then prohibited from reactor operation.

The second phase encompasses activities during the storage period or during major decommissioning activities, or a combination of the two. The third phase pertains to the activities involved in license termination. The decommissioning estimates developed for St. Lucie are also divided into phases or periods; however, demarcation of the phases is based upon major milestones within the project or significant changes in the projected expenditures.

The scenarios selected for evaluation are representative of alternatives available to the owner. With the offset in shut down dates, the DECON alternative has been modified for Unit 1 to create certain efficiencies and economies in the dismantling process. While decommissioning operations could be initiated earlier, dismantling a retired nuclear unit on an operating site may not be cost advantageous.

2.1 DECON

The DECON alternative, as defined by the NRC, is "the alternative in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the

property to be released for unrestricted use shortly after cessation of operations." This study does not address the cost to dispose of the spent fuel residing at the site; such costs are funded through a surcharge on electrical generation. However, the study does estimate the costs incurred with the interim on-site storage of the fuel pending shipment by the DOE to an off-site disposal facility.

The operating licenses for Units 1 and 2 currently expire in March 2036 and April 2043, respectively. The DECON scenario, as described in this report, assumes that decommissioning activities at the two units are sequenced and integrated so as to minimize the total duration of the physical dismantling processes. As such, Unit 1 is placed into an abbreviated period of safe-storage until Unit 2 completes its operations. Any residual spent fuel is transferred to the ISFSI so as to facilitate decontamination and dismantling activities within the fuel handling buildings. Spent fuel storage operations continue at the site until the transfer of the fuel to the DOE is complete, assumed to be in the year 2060.

2.1.1 Period 1 - Preparations

In anticipation of the cessation of plant operations, detailed preparations are undertaken to provide a smooth transition from plant operations to site decommissioning. Through implementation of a staffing transition plan, the organization required to manage the intended decommissioning activities is assembled from available plant staff and outside resources. Preparations include the planning for permanent defueling of the reactor, revision of technical specifications applicable to the operating conditions and requirements, a characterization of the facility and major components, and the development of the PSDAR.

Engineering and Planning

The PSDAR, required within two years of the notice to cease operations, provides a description of the licensee's planned decommissioning activities, a timetable, and the associated financial requirements of the intended decommissioning program. Upon receipt of the PSDAR, the NRC will make the document available to the public for comment in a local hearing to be held in the vicinity of the reactor site. Ninety days following submittal and NRC receipt of the PSDAR, the licensee may begin to perform major decommissioning activities under a modified 10 CFR §50.59 procedure, *i.e.*, without specific NRC approval. Major

activities are defined as any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components (for shipment) containing GTCC, as defined by 10 CFR §61. Major components are further defined as comprising the reactor vessel and internals, large bore reactor coolant system piping, and other large components that are radioactive. The NRC includes the following additional criteria for use of the §50.59 process in decommissioning. The proposed activity must not:

- foreclose release of the site for possible unrestricted use,
- significantly increase decommissioning costs,
- cause any significant environmental impact, or
- violate the terms of the licensee's existing license.

Existing operational technical specifications are reviewed and modified to reflect plant conditions and the safety concerns associated with permanent cessation of operations. The environmental impact associated with the planned decommissioning activities is also considered. Typically, a licensee will not be allowed to proceed if the consequences of a particular decommissioning activity are greater than that bounded by previously evaluated environmental assessments or impact statements. In this instance, the licensee would have to submit a license amendment for the specific activity and update the environmental report.

The decommissioning program outlined in the PSDAR will be designed to accomplish the required tasks within the ALARA guidelines (as defined in 10 CFR §20) for protection of personnel from exposure to radiation hazards. It will also address the continued protection of the health and safety of the public and the environment during the dismantling activity. Consequently, with the development of the PSDAR, activity specifications, cost-benefit and safety analyses, work packages and procedures, would be assembled to support the proposed decontamination and dismantling activities.

Site Preparations

Following final plant shutdown, and in preparation for actual decommissioning activities, the following activities are initiated:

- Characterization of the site and surrounding environs. This includes radiation surveys of work areas, major components (including the

reactor vessel and its internals), internal piping, and primary shield cores.

- Isolation of the spent fuel storage pools and fuel handling systems, such that decommissioning operations can commence on the balance of the plant. The pools will remain operational for approximately 5½ years following the cessation of operations before the inventory resident at shutdown can be transferred to either the ISFSI or a DOE facility.

- Specification of transport and disposal requirements for activated materials and/or hazardous materials, including shielding and waste stabilization.

- Development of procedures for occupational exposure control, control and release of liquid and gaseous effluent, processing of radwaste (including dry-active waste, resins, filter media, metallic and non-metallic components generated in decommissioning), site security and emergency programs, and industrial safety.

The DECON cost model for Unit 1 uses the nomenclature of the SAFSTOR alternative to accommodate the seven year offset in unit shutdown dates and the inclusion of a delay in the start of Unit 1 decommissioning. As such, Period 2, for Unit 1, is an abbreviated period of storage, awaiting the cessation of operations at Unit 2. During this period the fuel is offloaded from the Unit 1 storage pool to either the DOE or the ISFSI. Essential systems (to future decommissioning operations) are maintained and operational waste inventories processed during this period. Period 2 is followed by preparations to reactivate the unit for decontamination and dismantling, referred to as Period 3 for purposes of the cost model. The activities in Periods 4 and 5 for Unit 1 are identical to those delineated in Period 2 and Period 3 below with the exception of any defueling activities that have already been performed at Unit 1.

2.1.2 Period 2 - Decommissioning Operations

This period includes the physical decommissioning activities associated with the removal and disposal of contaminated and activated components and structures, including the successful termination of the

10 CFR §50 operating license. Significant decommissioning activities in this phase include:

- Construction of temporary facilities and/or modification of existing facilities to support dismantling activities. This may include a centralized processing area to facilitate equipment removal and component preparations for off-site disposal.

- Reconfiguration and modification of site structures and facilities as needed to support decommissioning operations. This may include the upgrading of roads (on- and off-site) to facilitate hauling and transport. Modifications may be required to the containment structure to facilitate access of large/heavy equipment. Modifications may also be required to the refueling area of the building to support the segmentation of the reactor vessel internals and component extraction.

- Expansion of the ISFSI and the transfer of the spent fuel from the storage pools to a DOE shipping cask or to the ISFSI pad for interim storage.

- Design and fabrication of temporary and permanent shielding to support removal and transportation activities, construction of contamination control envelopes, and the procurement of specialty tooling.

- Procurement (lease or purchase) of shipping canisters, cask liners, and industrial packages for the disposition of low-level radioactive waste.

- Decontamination of components and piping systems as required to control (minimize) worker exposure.

- Removal of piping and components no longer essential to support decommissioning operations.

- Removal of control rod drive housings and the head service structure from the reactor vessel head. Segmentation of the vessel closure head.

- Removal and segmentation of the upper internals assemblies. Segmentation will maximize the loading of the shielded transport casks, *i.e.*, by weight and activity. The operations are conducted under water using remotely operated tooling and contamination controls.

- Disassembly and segmentation of the remaining reactor internals, including the core shroud and lower core support assembly. Some material is expected to exceed Class C disposal requirements. As such, the segments will be packaged in modified fuel storage canisters for geologic disposal.

- Segmentation of the reactor vessel. A shielded platform is installed for segmentation as cutting operations are performed in-air using remotely operated equipment within a contamination control envelope. The water level is maintained just below the cut to minimize the working area dose rates. Segments are transferred in-air to containers that are stored under water, for example, in an isolated area of the refueling canal.

- Removal of the activated portions of the concrete biological shield and accessible contaminated concrete surfaces. If dictated by the steam generator and pressurizer removal scenarios, those portions of the associated cubicles necessary for access and component extraction are removed.

- Removal of the steam generators and pressurizer for material recovery and controlled disposal. The generators will be moved to an on-site processing center, the steam domes removed and the internal components segregated for recycling. The lower shell and tube bundle will be packaged for direct disposal. These components can serve as their own burial containers provided that all penetrations are properly sealed and the internal contaminants are stabilized, *e.g.*, with grout. Steel shielding will be added, as necessary, to those external areas of the package to meet transportation limits and regulations.

At least two years prior to the anticipated date of license termination, an LTP is required. Submitted as a supplement to the Final Safety Analysis Report (FSAR) or its equivalent, the plan must include: a site characterization, description of the remaining dismantling activities,

plans for site remediation, procedures for the final radiation survey, designation of the end use of the site, an updated cost estimate to complete the decommissioning, and any associated environmental concerns. The NRC will notice the receipt of the plan, make the plan available for public comment, and schedule a local hearing. LTP approval will be subject to any conditions and limitations as deemed appropriate by the Commission. The licensee may then commence with the final remediation of site facilities and services, including:

- Removal of remaining plant systems and associated components as they become nonessential to the decommissioning program or worker health and safety (*e.g.*, waste collection and treatment systems, electrical power and ventilation systems).

- Removal of the steel liners from refueling canal, disposing of the activated and contaminated sections as radioactive waste. Removal of any activated/ contaminated concrete.

- Surveys of the decontaminated areas of the containment structure.

- Remediation and removal of the contaminated equipment and material from the reactor auxiliary and fuel buildings and any other contaminated facility. Radiation and contamination controls will be utilized until residual levels indicate that the structures and equipment can be released for unrestricted access and conventional demolition. This activity may necessitate the dismantling and disposition of most of the systems and components (both clean and contaminated) located within these buildings. This activity facilitates surface decontamination and subsequent verification surveys required prior to obtaining release for demolition.

- Routing of material removed in the decontamination and dismantling to a central processing area. Material certified to be free of contamination is released for unrestricted disposition, *e.g.*, as scrap, recycle, or general disposal. Contaminated material is characterized and segregated for additional off-site processing (disassembly, chemical cleaning, volume reduction, and waste treatment), and/or packaged for controlled disposal at a low-level radioactive waste disposal facility.

Incorporated into the LTP is the Final Survey Plan. This plan identifies the radiological surveys to be performed once the decontamination activities are completed and is developed using the guidance provided in the "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)."[15] This document incorporates the statistical approaches to survey design and data interpretation used by the EPA. It also identifies state-of-the-art, commercially available instrumentation and procedures for conducting radiological surveys. Use of this guidance ensures that the surveys are conducted in a manner that provides a high degree of confidence that applicable NRC criteria are satisfied. Once the survey is complete, the results are provided to the NRC in a format that can be verified. The NRC then reviews and evaluates the information, performs an independent confirmation of radiological site conditions, and makes a determination on final termination of the license.

The NRC will terminate the operating license if it determines that site remediation has been performed in accordance with the LTP, and that the terminal radiation survey and associated documentation demonstrate that the facility is suitable for release.

2.1.3 Period 3 - Site Restoration

Following completion of decommissioning operations, site restoration activities will begin. Efficient removal of the contaminated materials and verification that residual radionuclide concentrations are below the NRC limits will result in substantial damage to many of the structures. Although performed in a controlled, safe manner, blasting, coring, drilling, scarification (surface removal), and the other decontamination activities will substantially degrade power block structures including the reactor, reactor auxiliary and fuel handling buildings. Under certain circumstances, verifying that subsurface radionuclide concentrations meet NRC site release requirements will require removal of grade slabs and lower floors, potentially weakening footings and structural supports. This removal activity will be necessary for those facilities and plant areas where historical records, when available, indicate the potential for radionuclides having been present in the soil, where system failures have been recorded, or where it is required to confirm that subsurface process and drain lines were not breached over the operating life of the station.

Prompt dismantling of site structures is clearly the most appropriate and cost-effective option. It is unreasonable to anticipate that these structures would be repaired and preserved after the radiological contamination is removed. The cost to dismantle site structures with a work force already mobilized on site is more efficient than if the process were deferred. Site facilities quickly degrade without maintenance, adding additional expense and creating potential hazards to the public as well as to future workers. Abandonment creates a breeding ground for vermin infestation as well as other biological hazards.

This cost study presumes that non-essential structures and site facilities are dismantled as a continuation of the decommissioning activity. Foundations and exterior walls are removed to a nominal depth of three feet below grade. The three-foot depth allows for the placement of gravel for drainage, as well as topsoil, so that vegetation can be established for erosion control. Site areas affected by the dismantling activities are restored and the plant area graded as required to prevent ponding and inhibit the refloating of subsurface materials.

Non-contaminated concrete rubble produced by demolition activities is processed to remove reinforcing steel and miscellaneous embedments. The processed material is then used on site to backfill foundation voids. Excess non-contaminated materials are trucked to an off-site area for recycling and reuse, *e.g.*, for road beds.

2.1.4 ISFSI Operations and Decommissioning

The ISFSI will be licensed for independent operation (10 CFR §72, Specific License) following the termination of the §50 operating licenses. Assuming the DOE starts accepting fuel in 2015, transfer of spent fuel from the ISFSI is anticipated to begin in 2017, and continue through the year 2060.

At the conclusion of the spent fuel transfer process, the ISFSI will be decommissioned. The Commission will terminate the §72 license if it determines that the remediation of the ISFSI has been performed in accordance with an ISFSI license termination plan and that the final radiation survey and associated documentation demonstrate that the

facility is suitable for release. Once the requirements are satisfied, the NRC can terminate the license for the ISFSI.

The assumed design for the ISFSI is based upon the use of a multi-purpose canister and a concrete overpack for pad storage. For purposes of this cost analysis, it is assumed that once the inner canisters containing the spent fuel assemblies have been removed, any required decontamination performed on the overpacks (some minor activation is assumed), and the license for the facility terminated, the overpacks can be dismantled using conventional techniques for the demolition of reinforced concrete. The concrete storage pad is then removed and the area regraded.

2.2 SAFSTOR

The NRC defines SAFSTOR as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use." The facility is left intact (during the dormancy period), with structures maintained in a sound condition. Systems that are not required to support the spent fuel pools or site surveillance and security are drained, de-energized, and secured. Minimal cleaning/removal of loose contamination and/or fixation and sealing of remaining contamination is performed. Access to contaminated areas is secured to provide controlled access for inspection and maintenance.

The engineering and planning requirements are similar to those for the DECON alternative, although a shorter time period is expected for these activities due to the more limited work scope. Site preparations are also similar to those for the DECON alternative. However, with the exception of the required radiation surveys and site characterizations, the mobilization and preparation of site facilities is less extensive.

2.2.1 Period 1 - Preparations

Preparations for long-term storage include the planning for permanent defueling of the reactor, revision of technical specifications appropriate to the operating conditions and requirements, a characterization of the facility and major components, and the development of the PSDAR.

The process of placing the plant in safe-storage includes, but is not limited to, the following activities:

- Isolation of the spent fuel storage services and fuel handling systems so that safe-storage operations may commence on the balance of the plant. This activity may be carried out by plant personnel in accordance with existing operating technical specifications. Activities are scheduled around the fuel handling systems to the greatest extent possible.

- Expansion of the ISFSI and transfer of the spent fuel from the storage pools to the DOE and ISFSI pad for interim storage, following the minimum required cooling period in the spent fuel pools.

- Draining and de-energizing of the non-contaminated systems not required to support continued site operations or maintenance.

- Disposing of contaminated filter elements and resin beds not required for processing wastes from layup activities for future operations.

- Draining of the reactor vessel, with the internals left in place and the vessel head secured.

- Draining and de-energizing non-essential, contaminated systems with decontamination as required for future maintenance and inspection.

- Preparing lighting and alarm systems whose continued use is required; de-energizing portions of fire protection, electric power, and HVAC systems whose continued use is not required.

- Cleaning of the loose surface contamination from building access pathways.

- Performing an interim radiation survey of plant, posting warning signs where appropriate.

- Erecting physical barriers and/or securing all access to radioactive or contaminated areas, except as required for inspection and maintenance.

- Installing security and surveillance monitoring equipment and relocating security fence around secured structures, as required.

2.2.2 Period 2 - Dormancy

The second phase identified by the NRC in its rule addresses licensed activities during a storage period and is applicable to the dormancy phases of the deferred decommissioning alternatives. Dormancy activities include a 24-hour security force, preventive and corrective maintenance on security systems, area lighting, general building maintenance, heating and ventilation of buildings, routine radiological inspections of contaminated structures, maintenance of structural integrity, and a site environmental and radiation monitoring program. Resident maintenance personnel perform equipment maintenance, inspection activities, routine services to maintain safe conditions, adequate lighting, heating, and ventilation, and periodic preventive maintenance on essential site services.

An environmental surveillance program is carried out during the dormancy period to ensure that releases of radioactive material to the environment are prevented and/or detected and controlled. Appropriate emergency procedures are established and initiated for potential releases that exceed prescribed limits. The environmental surveillance program constitutes an abbreviated version of the program in effect during normal plant operations.

Security during the dormancy period is conducted primarily to prevent unauthorized entry and to protect the public from the consequences of its own actions. The security fence, sensors, alarms, and other surveillance equipment provide security. Fire and radiation alarms are also monitored and maintained.

Consistent with the DECON scenario, the spent fuel storage pools are emptied within 5½ years of the cessation of operations. The transfer of the spent fuel from the ISFSI to a DOE facility continues throughout the dormancy period until completed in 2060. Once emptied, the ISFSI is

secured for storage and decommissioned along with the power block structures in Period 4.

After an optional period of storage (such that license termination is accomplished within 60 years of final shutdown), it is required that the licensee submit an application to terminate the license, along with an LTP (described in Section 2.1.2), thereby initiating the third phase.

2.2.3 Periods 3 and 4 - Delayed Decommissioning

Prior to the commencement of decommissioning operations, preparations are undertaken to reactivate site services and prepare for decommissioning. Preparations include engineering and planning, a detailed site characterization, and the assembly of a decommissioning management organization. Final planning for activities and the writing of activity specifications and detailed procedures are also initiated at this time.

Much of the work in developing a termination plan is relevant to the development of the detailed engineering plans and procedures. The activities associated with this phase and the follow-on decontamination and dismantling processes are detailed in Sections 2.1.1 and 2.1.2. The primary difference between the sequences anticipated for the DECON and this deferred scenario is the absence, in the latter, of any constraint on the availability of the fuel storage facilities for decommissioning.

Variations in the length of the dormancy period are expected to have little effect upon the quantities of radioactive wastes generated from system and structure removal operations. Given the levels of radioactivity and spectrum of radionuclides expected from fifty to sixty years of plant operation, no plant process system identified as being contaminated upon final shutdown will become releasable due to the decay period alone, *i.e.*, there is no significant reduction in the waste generated from the decommissioning activities. However, due to the lower activity levels, a greater percentage of the waste volume can be designated for off-site processing and recovery.

The delay in decommissioning also yields lower working area radiation levels. As such, the estimate for this delayed scenario incorporates reduced ALARA controls for the SAFSTOR's lower occupational exposure potential.

Although the initial radiation levels due to ^{60}Co will decrease during the dormancy period, the internal components of the reactor vessel will still exhibit sufficiently high radiation dose rates to require remote sectioning under water due to the presence of long-lived radionuclides such as ^{94}Nb, ^{59}Ni, and ^{63}Ni. Therefore, the dismantling procedures described for the DECON alternative would still be employed during this scenario. Portions of the biological shield will still be radioactive due to the presence of activated trace elements with long half-lives (^{152}Eu and ^{154}Eu). Decontamination will require controlled removal and disposal. It is assumed that radioactive corrosion products on inner surfaces of piping and components will not have decayed to levels that will permit unrestricted use or allow conventional removal. These systems and components will be surveyed as they are removed and disposed of in accordance with the existing radioactive release criteria.

2.2.4 Period 5 - Site Restoration

Following completion of decommissioning operations, site-restoration activities can begin. Dismantling, as a continuation of the decommissioning process, is clearly the most appropriate and cost-effective option, as described in Section 2.1.3. The basis for the dismantling cost in this scenario is consistent with that described for DECON, presuming the removal of structures and site facilities to a nominal depth of three feet below grade and the limited restoration of the site.

3. COST ESTIMATE

The cost estimates prepared for decommissioning St. Lucie consider the unique features of the site, including the NSSS, power generation systems, support services, site buildings, and ancillary facilities. The basis of the estimates, including the sources of information relied upon, the estimating methodology employed, site-specific considerations, and other pertinent assumptions, is described in this section.

3.1 BASIS OF ESTIMATE

The estimates were developed with site-specific, technical information from an evaluation prepared for FPL in 1999.[16] The information was reviewed for the current analysis and updated as deemed appropriate. The site-specific considerations and assumptions used in the previous evaluation were also revisited. Modifications were incorporated where new information was available or experience from ongoing decommissioning programs provided viable alternatives or improved processes.

3.2 METHODOLOGY

The methodology used to develop the estimates follows the basic approach originally presented in the AIF/NESP-036 study report, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates,"[17] and the DOE "Decommissioning Handbook."[18] These documents present a unit factor method for estimating decommissioning activity costs, which simplifies the estimating calculations. Unit factors for concrete removal ($/cubic yard), steel removal ($/ton), and cutting costs ($/inch) were developed using local labor rates. The activity-dependent costs were estimated with the item quantities (cubic yards and tons), developed from plant drawings and inventory documents. Removal rates and material costs for the conventional disposition of components and structures relied upon information available in the industry publication, "Building Construction Cost Data," published by R.S. Means.[19]

This analysis reflects lessons learned from TLG's involvement in the Shippingport Station Decommissioning Project, completed in 1989, as well as the decommissioning of the Cintichem reactor, hot cells, and associated facilities, completed in 1997. In addition, the planning and engineering for the Pathfinder, Shoreham, Rancho Seco, Trojan, Yankee Rowe, Big Rock Point, Maine Yankee, Humboldt Bay-3, Oyster Creek, Connecticut Yankee,

and San Onofre-1 nuclear units have provided additional insight into the process, the regulatory aspects, and the technical challenges of decommissioning commercial nuclear units.

The unit factor method provides a demonstrable basis for establishing reliable cost estimates. The detail provided in the unit factors, including activity duration, labor costs (by craft), and equipment and consumable costs, ensures that essential elements have not been omitted. Appendix A presents the detailed development of a typical unit factor. Appendix B provides the values contained within one set of factors developed for this analysis.

Work Difficulty Factors

TLG has historically applied work difficulty adjustment factors (WDFs) to account for the inefficiencies in working in a power plant environment. WDFs were assigned to each unique set of unit factors, commensurate with the inefficiencies associated with working in confined, hazardous environments. The ranges used for the WDFs are as follows:

- Access Factor 10% to 20%
- Respiratory Protection Factor 10% to 50%
- Radiation/ALARA Factor 10% to 40%
- Protective Clothing Factor 10% to 30%
- Work Break Factor 8.33%

The factors and their associated range of values were developed in conjunction with the AIF/NESP-036 study. The application of the factors is discussed in more detail in that publication.

Scheduling Program Durations

The unit factors, adjusted by the WDFs as described above, are applied against the inventory of materials to be removed in the radiologically controlled areas. The resulting man-hours, or crew-hours, are used in the development of the decommissioning program schedule, using resource loading and event sequencing considerations. The scheduling of conventional removal and dismantling activities are based upon productivity information available from the "Building Construction Cost Data" publication.

An activity duration critical path is used to determine the total decommissioning program schedule. The schedule is relied upon in

calculating the carrying costs, which include program management, administration, field engineering, equipment rental, and support services such as quality control and security. This systematic approach for assembling decommissioning estimates ensures a high degree of confidence in the reliability of the resulting costs.

3.3 FINANCIAL COMPONENTS OF THE COST MODEL

TLG's proprietary decommissioning cost model, DECCER, produces a number of distinct cost elements. These direct expenditures, however, do not comprise the total cost to accomplish the project goal, *i.e.*, license termination and site restoration.

Inherent in any cost estimate that does not rely on historical data is the inability to specify the precise source of costs imposed by factors such as tool breakage, accidents, illnesses, weather delays, and labor stoppages. In the DECCER cost model, contingency fulfills this role. Contingency is added to each line item to account for costs that are difficult or impossible to develop analytically. Such costs are historically inevitable over the duration of a job of this magnitude; therefore, this cost analysis includes funds to cover these types of expenses.

3.3.1 Contingency

The activity- and period-dependent costs are combined to develop the total decommissioning cost. A contingency is then applied on a line-item basis, using one or more of the contingency types listed in the AIF/NESP-036 study. "Contingencies" are defined in the American Association of Cost Engineers "Project and Cost Engineers' Handbook[20] as "specific provision for unforeseeable elements of cost within the defined project scope; particularly important where previous experience relating estimates and actual costs has shown that unforeseeable events which will increase costs are likely to occur." The cost elements in this analysis are based upon ideal conditions and maximum efficiency; therefore, consistent with industry practice, a contingency factor has been applied. In the AIF/NESP-036 study, the types of unforeseeable events that are likely to occur in decommissioning are discussed and guidelines are provided for percentage contingency in each category. It should be noted that contingency, as used in this analysis, does not account for price

escalation and inflation in the cost of decommissioning over the remaining operating life of the station.

The use and role of contingency within decommissioning estimates is not a "safety factor issue." Safety factors provide additional security and address situations that may never occur. Contingency funds are expected to be fully expended throughout the program. They also provide assurance that sufficient funding is available to accomplish the intended tasks. An estimate without contingency, or from which contingency has been removed, can disrupt the orderly progression of events and jeopardize a successful conclusion to the decommissioning process.

For example, the most technologically challenging task in decommissioning a commercial nuclear station is the disposition of the reactor vessel and internal components, now highly radioactive after a lifetime of exposure to core activity. The disposition of these components forms the basis of the critical path (schedule) for decommissioning operations. Cost and schedule are interdependent, and any deviation in schedule has a significant impact on cost for performing a specific activity.

Disposition of the reactor vessel internals involves the underwater cutting of complex components that are highly radioactive. Costs are based upon optimum segmentation, handling, and packaging scenarios. The schedule is primarily dependent upon the turnaround time for the heavily shielded shipping casks, including preparation, loading, and decontamination of the containers for transport. The number of casks required is a function of the pieces generated in the segmentation activity, a value calculated on optimum performance of the tooling employed in cutting the various subassemblies. The expected optimization, however, may not be achieved, resulting in delays and additional program costs. For this reason, contingency must be included to mitigate the consequences of the expected inefficiencies inherent in this complex activity, along with related concerns associated with the operation of highly specialized tooling, field conditions, and water clarity.

Contingency funds are an integral part of the total cost to complete the decommissioning process. Exclusion of this component puts at risk a successful completion of the intended tasks and, potentially,

subsequent related activities. For this study, TLG examined the major activity-related problems (decontamination, segmentation, equipment handling, packaging, transport, and waste disposal) that necessitate a contingency. Individual activity contingencies ranged from 10% to 75%, depending on the degree of difficulty judged to be appropriate from TLG's actual decommissioning experience. The contingency values used in this study are as follows:

Decontamination	50%
Contaminated Component Removal	25%
Contaminated Component Packaging	10%
Contaminated Component Transport	15%
Low-Level Radioactive Waste Disposal	25%
Reactor Segmentation	75%
NSSS Component Removal	25%
Reactor Waste Packaging	25%
Reactor Waste Transport	25%
Reactor Vessel Component Disposal	50%
GTCC Disposal	15%
Non-Radioactive Component Removal	15%
Heavy Equipment and Tooling	15%
Supplies	25%
Engineering	15%
Energy	15%
Characterization and Termination Surveys	30%
Construction	15%
Taxes and Fees	10%
Insurance	10%
Staffing	15%

The contingency values are applied to the appropriate components of the estimates on a line item basis. A composite value is then reported at the end of each estimate. For example, the composite contingency values reported for the DECON alternative are 17.7% and 18.8% for Units 1 and 2, respectively. Values for the SAFSTOR alternative are delineated within the detailed cost tables in Appendix D.

3.3.2 Financial Risk

In addition to the routine uncertainties addressed by contingency, another cost element that is sometimes necessary to consider when bounding decommissioning costs relates to uncertainty, or risk. Examples can include changes in work scope, pricing, job performance, and other variations that could conceivably, but not necessarily, occur. Consideration is sometimes necessary to generate a level of confidence in the estimate, within a range of probabilities. TLG considers these types of costs under the broad term "financial risk." Included within the category of financial risk are:

- Transition activities and costs: ancillary expenses associated with eliminating 50% to 80% of the site labor force shortly after the cessation of plant operations, added cost for worker separation packages throughout the decommissioning program, national or company-mandated retraining, and retention incentives for key personnel.

- Delays in approval of the proposed decommissioning plans due to intervention, public participation in local community meetings, legal challenges, and national and local hearings.

- Changes in the project work scope from the baseline estimate, involving the discovery of unexpected levels of contaminants, contamination in places not previously expected, contaminated soil previously undiscovered (either radioactive or hazardous material contamination), variations in plant inventory or configuration not indicated by the as-built drawings.

- Regulatory changes, *e.g.*, affecting worker health and safety, site release criteria, waste transportation, and disposal.

- Policy decisions altering national commitments, *e.g.*, in the ability to accommodate certain waste forms for disposition, or in the timetable for such, *e.g.*, the start and rate of acceptance of spent fuel by the DOE.

- Pricing changes for basic inputs, such as labor, energy, materials, and burial. Some of these inputs may vary slightly, *e.g.* -10% to +20%; burial could vary from -50% to +200% or more.

It has been TLG's experience that the results of a risk analysis, when compared with the base case estimate for decommissioning, indicate that the chances of the base decommissioning estimate's being too high is a low probability, and the chances that the estimate is too low is a higher probability. This is mostly due to the pricing uncertainty for low-level radioactive waste burial, and to a lesser extent due to schedule increases from changes in plant conditions and to pricing variations in the cost of labor (both craft and staff). This cost study, however, does not add any additional cost to the estimate for financial risk, since there is insufficient historical data from which to project future liabilities. Consequently, the areas of uncertainty or risk are revisited periodically and addressed through repeated revisions or updates of the base estimate.

3.4 SITE-SPECIFIC CONSIDERATIONS

There are a number of site-specific considerations that affect the method for dismantling and removal of equipment from the site and the degree of restoration required. The cost impact of the considerations identified below is included in this cost study.

3.4.1 Spent Fuel Management

The cost to dispose of spent fuel generated from plant operations is not reflected within the estimates to decommission the St. Lucie units. Ultimate disposition of the spent fuel is within the province of the DOE's Waste Management System, as defined by the NWPA. As such, the disposal cost is financed by a 1 mill/kWhr surcharge paid into the DOE's waste fund during operations. However, the NRC requires licensees to establish a program to manage and provide funding for the management of all irradiated fuel at the reactors until title of the fuel is transferred to the Secretary of Energy. This funding requirement is fulfilled through inclusion of certain high-level waste cost elements within the estimate, as described below.

The total inventory of assemblies that will require handling during decommissioning is based upon several assumptions. The pickup of commercial fuel is assumed to begin in the year 2015 and will proceed on an oldest fuel first basis. The maximum rate at which the fuel is removed from the commercial sites is based upon a maximum annual capacity at the geologic repository of 3,000 metric tons of uranium

(MTU). Any delay in the startup of the repository or decrease in the rate of acceptance will correspondingly prolong the transfer process and result in the fuel remaining at the site longer.

The ISFSI will continue to operate until such time that the transfer of spent fuel to the DOE can be completed. Assuming that the DOE commences repository operation in 2015, fuel is projected to be removed from the St. Lucie site by the year 2060.

Following the cessation of plant operations, operation and maintenance costs for the storage facilities (the ISFSI and the pools) incurred during the decommissioning period are included within the estimates and address the cost for staffing the facilities, as well as security, insurance, and licensing fees. The estimates include the costs to purchase, load, and transfer the fuel storage canisters. Costs are also provided for the final disposition of the facilities once the transfer is complete.

Repository Startup

Operation of the DOE's yet-to-be constructed geologic repository is contingent upon the review and approval of the facility's license application by the NRC, the successful resolution of pending litigation, and the development of a national transportation system. For comparison, the Private Fuel Storage consortium submitted an application for an interim storage facility in 1997. It was eight years before the NRC issued a license for the facility. With a more technically complex and politically sensitive application for permanent disposal, it is not unreasonable to expect that NRC approval to construct the repository at Yucca Mountain will require at least as long a review period. Construction would therefore begin sometime around the year 2010, at the earliest. Therefore, the spent fuel management plan described in this section is predicated upon the DOE initiating the pickup of commercial fuel in the year 2015. This timetable is consistent with the findings of an evaluation issued to Congress by the Government Accounting Office.[21]

Spent Fuel Management Model

The ability to complete the decommissioning is highly dependent upon when the DOE is assumed to remove spent fuel from the site. DOE's

repository program assumes that spent fuel will be accepted for disposal from the nation's commercial nuclear plants in the order (the "queue") in which it was removed from service ("oldest fuel first").[22] The site residence schedule for the spent fuel is based upon the DOE's most recently published annual acceptance rates of 400 MTU/year for year 1, 600 MTU/year for year 2, 1200 MTU/year for year 3, 2000 MTU/year for year 4, and 3000 MTU/year for year 5 and beyond.[23]

The spent fuel acceptance allocations for the St. Lucie and Turkey Point nuclear units were combined and redistributed to the two sites during the decommissioning time period. Once the pools are off-loaded at Turkey Point, allocations are used to reduce the inventory of assemblies at the St. Lucie site. Pickup at the Turkey Point site resumes after the St. Lucie storage pools are emptied.

Storage Canister Design

An ISFSI, constructed to maintain full-core discharge capability in the spent fuel pools during operations, is expanded to support decommissioning. Only the capital cost to expand the ISFSI is included within the estimates along with the associated fuel transfer equipment needed once the storage pools are decommissioned. The design and capacity of the ISFSI is based upon the Holtec HI-STORM system, with a 32 fuel assembly capacity. A unit cost of $750,000 is used for pricing the internal multi-purpose canister (MPC) and the concrete overpack for the 30 modules required to support decommissioning. For fuel transferred directly from the pool to the DOE, the DOE is assumed to provide the MPC at no additional cost to the owner.

Canister Loading and Transfer

An average cost of $145,000 is used for the labor and equipment to load and transfer each spent fuel canister from the storage pools to the DOE, exclusive of any additional campaign costs. A cost of $290,000 is used for the loading and transfer of the fuel to the ISFSI. Campaign costs for the 10 campaigns are $175,000 and $350,000 for the DOE and ISFSI transfers, respectively. An additional cost of $15,000 is used to estimate the cost to transfer the fuel canisters from the ISFSI into a DOE transport cask.

Operations and Maintenance

An annual cost (excluding labor) of approximately $1,000,000 and $75,000 are used for operation and maintenance of the spent fuel pools and the ISFSI, respectively. Pool operations are expected to continue approximately 5½ years after the cessation of operations. ISFSI operating costs are based upon a 17 year period of operations following the cessation of Unit 2 operations.

ISFSI Design Considerations

A multi-purpose (storage and transport) dry shielded storage canister with a vertical, reinforced concrete storage silo is used as a basis for the cost analysis. Approximately 50% of the silos are assumed to have some level of neutron-induced activation as a result of the long-term storage of the fuel, *i.e.*, to levels exceeding free-release limits. Approximately 10% of the concrete and steel is assumed to be removed from the overpacks for controlled disposal. The cost of the disposition of this material, as well as the demolition of the ISFSI facility, is included in the estimate.

GTCC

The dismantling of the reactor internals will generate radioactive waste considered unsuitable for shallow land disposal, *i.e.*, low-level radioactive waste with concentrations of radionuclides that exceed the limits established by the Commission for Class C radioactive waste (GTCC). The Low-Level Radioactive Waste Policy Amendments Act of 1985 assigned the Federal Government the responsibility for the disposal of this material. The Act also stated that the beneficiaries of the activities resulting in the generation of such radioactive waste bear all reasonable costs of disposing of such waste. However, to date, the Federal Government has not identified a cost for disposing of GTCC or a schedule for acceptance. As such, the estimates to decommission the St. Lucie reactors include an allowance for the disposition of GTCC material.

For purposes of this study, GTCC is packaged in the same canisters used to store spent fuel. Disposal costs are based upon a cost equivalent to that envisioned for the spent fuel. It is not anticipated that the DOE would accept this waste prior to completing the transfer

of spent fuel. Therefore, until such time the DOE is ready to accept GTCC waste, it is reasonable to assume that this material would remain in storage with the spent fuel in the ISFSI at the St. Lucie site (for the DECON alternative). In the SAFSTOR scenario, the GTCC material is shipped directly to a DOE facility as it is generated since the fuel has been removed from the site prior to the start of decommissioning.

3.4.2 Reactor Vessel and Internal Components

The NSSS (reactor vessel and reactor coolant system components) will be decontaminated using chemical agents prior to the start of cutting operations (for Unit 2, DECON alternative only). A decontamination factor (average reduction) of 10 is assumed for the process.

The reactor pressure vessel and internal components are segmented for disposal in shielded, reusable transportation casks. Segmentation is performed in the refueling canal, where a turntable and remote cutter are installed. The vessel is segmented in place, using a mast-mounted cutter supported off the lower head and directed from a shielded work platform installed overhead in the reactor cavity. Transportation cask specifications and transportation regulations dictate the segmentation and packaging methodology.

Intact disposal of the reactor vessel and internal components can provide savings in cost and worker exposure by eliminating the complex segmentation requirements, isolation of the GTCC material, and transport/storage of the resulting waste packages. Portland General Electric (PGE) was able to dispose of the Trojan reactor as an intact package. However, its location on the Columbia River simplified the transportation analysis since:

- the reactor package could be secured to the transport vehicle for the entire journey, *i.e.*, the package was not lifted during transport,
- there were no man-made or natural terrain features between the plant site and the disposal location that could produce a large drop, and
- transport speeds were very low, limited by the overland transport vehicle and the river barge.

As a member of the Northwest Compact, PGE had a site available for disposal of the package - the US Ecology facility in Washington State. The characteristics of this arid site proved favorable in demonstrating compliance with land disposal regulations.

It is not known whether this option will be available when the St. Lucie units cease operation. Future viability of this option will depend upon the ultimate location of the disposal site, as well as the disposal site licensee's ability to accept highly radioactive packages and effectively isolate them from the environment. Consequently, the study assumes the reactor vessel will require segmentation, as a bounding condition.

3.4.3 Primary System Components

The following discussion deals with the removal and disposition of the steam generators, but the techniques involved are also applicable to other large components, such as heat exchangers, component coolers, and the pressurizer. The steam generators' size and weight, as well as their location within the reactor building, will ultimately determine the removal strategy.

A trolley crane is set up for the removal of the generators. It can also be used to move portions of the steam generator cubicle walls and floor slabs from the reactor building to a location where they can be decontaminated and transported to the material handling area. Interferences within the work area, such as grating, piping, and other components are removed to create sufficient laydown space for processing these large components.

The generators are rigged for removal, disconnected from the surrounding piping and supports, and maneuvered into the open area where they are lowered onto a dolly. Each generator is rotated into the horizontal position for extraction from the containment and placed onto a multi-wheeled vehicle for transport to an on-site processing and storage area.

The generators are disassembled on-site with the steam domes and lightly contaminated subassemblies designated for off-site recycling. For cost estimating purposes, the more highly contaminated lower assembly containing the tube sheet and tube bundle are packaged for

direct disposal, although additional processing may be an option. The interior volume is filled with low-density cellular concrete for stabilization of the internal contamination. Each component is then loaded onto a barge for transport to a railhead. The steam generators are then transferred to a dedicated train for transport to the disposal facility.

The St. Lucie units have replaced their original steam generators. The generators from Unit 1 were shipped to Barnwell for disposal. This study assumes that the original generators from Unit 2 will also be disposed of prior to the cessation of operations, *i.e.*, their disposal is not included as a decommissioning expense.

Reactor coolant piping is cut from the reactor vessel once the water level in the vessel (used for personnel shielding during dismantling and cutting operations in and around the vessel) is dropped below the nozzle zone. The piping is boxed and transported by shielded van. The reactor coolant pumps and motors are lifted out intact, packaged, and transported for processing and/or disposal.

3.4.4 Main Turbine and Condenser

The main turbine will be dismantled using conventional maintenance procedures. The turbine rotors and shafts will be removed to a laydown area. The lower turbine casings will be removed from their anchors by controlled demolition. The main condensers will also be disassembled and moved to a laydown area. Clean material is released on site as scrap metal; radioactive or potentially radioactive material is then prepared for transportation to an off-site recycling facility where it will be surveyed and designated for either decontamination or volume reduction, conventional disposal, or controlled disposal. Components will be packaged and readied for transport in accordance with the intended disposition.

3.4.5 Transportation Methods

Contaminated piping, components, and structural material other than the highly activated reactor vessel and internal components will qualify as LSA-I, II or III or Surface Contaminated Object, SCO-I or II, as described in Title 49.[24] The contaminated material will be packaged in Industrial Packages (IP 1, 2, or 3, as defined in subpart

173.411) for transport unless demonstrated to qualify as their own shipping containers. The reactor vessel and internal components are expected to be transported in accordance with §71, as Type B. It is conceivable that the reactor, due to its limited specific activity, could qualify as LSA II or III. However, the high radiation levels on the outer surface would require that additional shielding be incorporated within the packaging so as to attenuate the dose to levels acceptable for transport.

Transport of the highly activated metal, produced in the segmentation of the reactor vessel and internal components, will be by shielded truck cask. Cask shipments may exceed 95,000 pounds, including vessel segment(s), supplementary shielding, cask tie-downs, and tractor-trailer. The maximum level of activity per shipment assumed permissible was based upon the license limits of the available shielded transport casks. The segmentation scheme for the vessel and internal segments is designed to meet these limits.

The transport of large intact components, *e.g.*, large heat exchangers and other oversized components will be by a combination of truck, rail, barge, and/or multi-wheeled transporter.

Transportation costs for material requiring controlled disposal are based upon the mileage to the Envirocare facility in Clive, Utah. Memphis, Tennessee, is used as the destination for off-site processing. Transportation costs are estimated using published tariffs from Tri-State Motor Transit.[25]

3.4.6 Low-Level Radioactive Waste Disposal

To the greatest extent practical, metallic material generated in the decontamination and dismantling processes is treated to reduce the total volume requiring controlled disposal. The treated material, meeting the regulatory and/or site release criterion, is released as scrap, requiring no further cost consideration. Conditioning and recovery of the waste stream is performed off site at a licensed processing center.

The Envirocare facility is used as a proxy for the future disposal of decommissioning waste. Since Envirocare does not have a license for Class B or C material, the Barnwell rates are also used, as

appropriate. Surcharges are added for the highly activated components, *e.g.*, generated in the segmentation of the reactor vessel.

3.4.7 Site Conditions Following Decommissioning

The NRC will terminate (or amend) the site licenses if it determines that site remediation has been performed in accordance with the license termination plan, and that the terminal radiation survey and associated documentation demonstrate that the facility is suitable for release. The NRC's involvement in the decommissioning process will end at this point. Building codes and environmental regulations will dictate the next step in the decommissioning process, as well as the owner's own future plans for the site.

Non-essential structures or buildings severely damaged in decontamination process are removed to a nominal depth of three feet below grade. Concrete rubble generated from demolition activities is processed and made available as clean fill. The excavations will be regraded such that the power block area will have a final contour consistent with adjacent surroundings.

3.5 ASSUMPTIONS

The following are the major assumptions made in the development of the estimates for decommissioning the site.

3.5.1 Estimating Basis

The study follows the principles of ALARA through the use of work duration adjustment factors. These factors address the impact of activities such as radiological protection instruction, mock-up training, and the use of respiratory protection and protective clothing. The factors lengthen a task's duration, increasing costs and lengthening the overall schedule. ALARA planning is considered in the costs for engineering and planning, and in the development of activity specifications and detailed procedures. Changes to worker exposure limits may impact the decommissioning cost and project schedule.

3.5.2 Labor Costs

The craft labor required to decontaminate and dismantle the nuclear units will be acquired through standard site contracting practices. The current cost of labor at the site is used as an estimating basis. Costs for site administration, operations, construction, and maintenance personnel are based upon average salary information provided by FPL or from comparable industry information.

FPL will hire a Decommissioning Operations Contractor (DOC) to manage the decommissioning. The owner will provide site security, radiological health and safety, quality assurance and overall site administration during the decommissioning and demolition phases. Contract personnel will provide engineering services, *e.g.*, for preparing the activity specifications, work procedures, activation, and structural analyses, under the direction of FPL.

3.5.3 Design Conditions

Any fuel cladding failure that occurred during the lifetime of the plant is assumed to have released fission products at sufficiently low levels that the buildup of quantities of long-lived isotopes (*e.g.*, ^{137}Cs, ^{90}Sr, or transuranics) has been prevented from reaching levels exceeding those that permit the major NSSS components to be shipped under current transportation regulations and disposal requirements.

The curie contents of the vessel and internals at final shutdown are derived from those listed in NUREG/CR-3474.[26] Actual estimates are derived from the curie/gram values contained therein and adjusted for the different mass of the St. Lucie components, projected operating life, and different periods of decay. Additional short-lived isotopes were derived from CR-0130[27] and CR-0672,[28] and benchmarked to the long-lived values from CR-3474.

The control elements are disposed of along with the spent fuel, *i.e.*, there is no additional cost provided for their disposal.

Activation of the reactor building structures is confined to the biological shield. More extensive activation (at very low levels) of the interior structures within containment has been detected at several reactors and the owners have elected to dispose of the affected

material at a controlled facility rather than reuse the material as fill on site or send it to a landfill. The ultimate disposition of the material removed from the reactor building will depend upon the site release criteria selected, as well as the designated end use for the site.

The estimates include an allowance for the remediation of contaminated soil, sediment and asphalt at several site areas that have been identified by FPL to contain concentrations of radionuclides in excess of NRC release limits. The areas include the primary and refueling water storage tanks, the east settling pond and the asphalt roadway adjacent to the Unit 2 fuel handling building. The costs are reported as "Contaminated Soil Remediation" in the detailed cost tables, *e.g.*, line item 4b.2.1 in Table C-1 and 2b.2.1 in Table C-2. The requirements assumed for soil remediation may be affected by continued plant operations and/or future regulatory actions, such as the development of site-specific release criteria.

3.5.4 General

Transition Activities

Existing warehouses will be cleared of non-essential material and remain for use by FPL and its subcontractors during decommissioning. The plant's operating staff will perform the following activities at no additional cost or credit to the project during the transition period:

- Drain and collect fuel oils, lubricating oils, and transformer oils for recycle and/or sale.
- Drain and collect acids, caustics, and other chemical stores for recycle and/or sale.
- Process operating waste inventories, *i.e.*, the estimates do not address the disposition of any legacy wastes; the disposal of operating wastes during this initial period is not considered a decommissioning expense.

Scrap and Salvage

The existing plant equipment is considered obsolete and suitable for scrap as deadweight quantities only. FPL will make economically reasonable efforts to salvage equipment following final plant shutdown. However, dismantling techniques assumed by TLG for

equipment in this analysis are not consistent with removal techniques required for salvage (resale) of equipment. Experience has indicated that some buyers wanted equipment stripped down to very specific requirements before they would consider purchase. This required expensive rework after the equipment had been removed from its installed location. Since placing a salvage value on this machinery and equipment would be speculative, and the value would be small in comparison to the overall decommissioning expenses, this analysis does not attempt to quantify the value that an owner may realize based upon those efforts.

It is assumed, for purposes of this analysis, that any value received from the sale of scrap generated in the dismantling process would be more than offset by the on-site processing costs. The dismantling techniques assumed in the decommissioning estimates do not include the additional cost for size reduction and preparation to meet "furnace ready" conditions. For example, the recovery of copper from electrical cabling may require the removal and disposition of any contaminated insulation, an added expense. With a volatile market, the potential profit margin in scrap recovery is highly speculative, regardless of the ability to free release this material. This assumption is an implicit recognition of scrap value in the disposal of clean metallic waste at no additional cost to the project.

Furniture, tools, mobile equipment such as forklifts, trucks, bulldozers, and other property owned by FPL will be removed at no cost or credit to the decommissioning project. Disposition may include relocation to other facilities. Spare parts will also be made available for alternative use.

Energy

For estimating purposes, the plant is assumed to be de-energized, with the exception of those facilities associated with spent fuel storage. Replacement power costs are used for the cost of energy consumption during decommissioning for tooling, lighting, ventilation, and essential services.

Insurance

Costs for continuing coverage (nuclear liability and property insurance) following cessation of plant operations and during decommissioning are included and based upon current operating premiums. Reductions in premiums, throughout the decommissioning process, are based upon the guidance and the limits for coverage defined in the NRC's proposed rulemaking "Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors."[29] NRC's financial protection requirements are based on various reactor (and spent fuel) configurations.

Taxes

Property taxes continue to be included as a site operating cost during decommissioning. Assessments are reduced over time to an annual payment of one million dollars. This assessment (split 50/50 between the units) continues to be applied until the site is released for unrestricted use.

Site Modifications

The perimeter fence and in-plant security barriers will be moved, as appropriate, to conform to the Site Security Plan in force during the various stages of the project.

3.6 COST ESTIMATE SUMMARY

Schedules of expenditures are provided for each scenario in Tables 3.1 through 3.4. Decommissioning costs are reported in the year of projected expenditure; however, the values are provided in thousands of 2004 dollars. Costs are not inflated, escalated, or discounted over the period of expenditure. The annual expenditures are based upon the detailed activity costs reported in Appendix C and D, along with the timelines presented in Section 4.

As discussed in Section 3.4.2, it is not anticipated that the DOE would accept the GTCC waste prior to completing the transfer of spent fuel. Therefore, for the DECON scenario, GTCC disposal is shown in the final year of ISFSI operation, *i.e.*, 2060. In SAFSTOR, the fuel is removed prior to the start of reactor vessel dismantling. The disposal of the GTCC, in this scenario, is assumed to be concurrent with the disposal of the other reactor internals.

While designated for disposal at the geologic repository along with the spent fuel, GTCC waste is still classified as low-level radioactive waste and, as such, included as a "License Termination" expense in the detailed activity cost tables. It should also be noted that the GTCC costs are assigned to the "Other" category, rather than "Burial," since the disposal charges for GTCC are assumed to be based upon cost recovery, consistent with spent fuel, in contrast to the market pricing offered by commercial low-level radioactive waste facilities.

TABLE 3.1
SCHEDULE OF ANNUAL EXPENDITURES
DECON, UNIT 1
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2036	27,649	1,507	5	44	5,722	34,926
2037	30,193	10,276	825	2,177	5,052	48,523
2038	7,407	5,567	6	52	4,048	17,079
2039	7,407	5,567	6	52	4,048	17,079
2040	7,427	5,582	6	53	4,059	17,126
2041	6,149	4,922	6	52	3,330	14,460
2042	3,645	3,637	6	52	1,901	9,242
2043	3,645	3,637	6	52	1,901	9,242
2044	14,755	2,674	83	2,225	2,175	21,912
2045	31,468	3,517	262	2,925	2,526	40,698
2046	46,588	17,353	6,142	30,076	3,109	103,269
2047	26,813	4,907	1,210	10,104	3,073	46,107
2048	25,378	3,951	824	8,526	3,076	41,755
2049	18,689	2,409	229	2,368	2,341	26,036
2050	11,368	6,686	0	1	1,262	19,317
2051	10,167	6,134	0	0	1,233	17,533
2052	1,004	204	0	0	1,182	2,390
2053	1,001	204	0	0	1,179	2,384
2054	1,001	204	0	0	1,179	2,384
2055	1,001	204	0	0	1,179	2,384
2056	1,004	204	0	0	1,182	2,390
2057	1,001	204	0	0	1,179	2,384
2058	1,001	204	0	0	1,179	2,384
2059	1,001	204	0	0	1,179	2,384
2060	1,001	246	0	0	13,605	14,852
2061	870	1,529	61	461	1,302	4,224
	288,631	91,732	9,678	59,222	73,199	522,462

* Includes GTCC disposal expenditures in year 2060

TABLE 3.2
SCHEDULE OF ANNUAL EXPENDITURES
DECON, UNIT 2
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2043	27,696	1,515	4	39	4,944	34,199
2044	49,270	15,331	3,123	18,685	5,966	92,376
2045	50,901	16,853	5,915	33,130	4,438	111,237
2046	34,659	5,641	1,074	9,360	4,115	54,850
2047	33,668	4,957	778	7,909	4,096	51,408
2048	32,280	4,814	818	7,486	3,776	49,175
2049	27,156	2,911	260	1,706	2,251	34,284
2050	18,899	6,156	0	1	1,262	26,319
2051	16,830	5,627	0	0	1,233	23,689
2052	987	156	0	0	1,182	2,325
2053	985	155	0	0	1,179	2,319
2054	985	155	0	0	1,179	2,319
2055	985	155	0	0	1,179	2,319
2056	987	156	0	0	1,182	2,325
2057	985	155	0	0	1,179	2,319
2058	985	155	0	0	1,179	2,319
2059	985	155	0	0	1,179	2,319
2060	985	199	0	0	13,605	14,789
2061	870	1,529	61	461	1,302	4,224
	301,098	66,776	12,035	78,777	56,424	515,110

* Includes GTCC disposal expenditures in year 2060

TABLE 3.3
SCHEDULE OF ANNUAL EXPENDITURES
SAFSTOR, UNIT 1
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2036	27,649	1,507	5	44	5,194	34,398
2037	29,010	10,484	996	7,011	4,328	51,829
2038	3,356	5,567	6	52	3,135	12,117
2039	3,356	5,567	6	52	3,135	12,117
2040	3,366	5,582	6	53	3,144	12,150
2041	2,754	3,987	6	52	2,449	9,248
2042	1,553	840	6	52	1,082	3,534
2043	1,553	840	6	52	1,082	3,534
2044	1,557	843	6	53	1,085	3,543
2045	1,553	840	6	52	1,082	3,534
2046	1,553	840	6	52	1,082	3,534
2047	1,553	840	6	52	1,082	3,534
2048	1,557	843	6	53	1,085	3,543
2049	1,553	840	6	52	1,082	3,534
2050	1,553	840	6	52	1,082	3,534
2051	1,553	840	6	52	1,082	3,534
2052	1,557	843	6	53	1,085	3,543
2053	1,553	840	6	52	1,082	3,534
2054	1,553	840	6	52	1,082	3,534
2055	1,553	840	6	52	1,082	3,534
2056	1,557	843	6	53	1,085	3,543
2057	1,553	840	6	52	1,082	3,534
2058	1,553	840	6	52	1,082	3,534
2059	1,553	840	6	52	1,082	3,534
2060	1,554	841	6	53	1,084	3,538
2061	379	237	6	52	984	1,659
2062	379	237	6	52	984	1,659
2063	379	237	6	52	984	1,659
2064	380	238	6	53	987	1,663
2065	379	237	6	52	984	1,659
2066	379	237	6	52	984	1,659
2067	379	237	6	52	984	1,659
2068	380	238	6	53	987	1,663
2069	379	237	6	52	984	1,659
2070	379	237	6	52	984	1,659
2071	379	237	6	52	984	1,659

TABLE 3.3 (continued)
SCHEDULE OF ANNUAL EXPENDITURES
SAFSTOR, UNIT 1
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2072	380	238	6	53	987	1,663
2073	379	237	6	52	984	1,659
2074	379	237	6	52	984	1,659
2075	379	237	6	52	984	1,659
2076	380	238	6	53	987	1,663
2077	379	237	6	52	984	1,659
2078	379	237	6	52	984	1,659
2079	379	237	6	52	984	1,659
2080	380	238	6	53	987	1,663
2081	379	237	6	52	984	1,659
2082	379	237	6	52	984	1,659
2083	379	237	6	52	984	1,659
2084	380	238	6	53	987	1,663
2085	379	237	6	52	984	1,659
2086	379	237	6	52	984	1,659
2087	379	237	6	52	984	1,659
2088	380	238	6	53	987	1,663
2089	379	237	6	52	984	1,659
2090	26,407	1,066	6	52	1,917	29,448
2091	40,709	9,171	2,001	9,812	6,762	68,454
2092	38,434	12,309	3,583	20,322	11,016	85,664
2093	25,160	3,835	678	7,943	3,006	40,623
2094	22,045	3,351	591	6,922	2,801	35,710
2095	9,935	1,109	4	36	1,552	12,637
2096	11,934	5,599	1	9	815	18,358
2097	11,061	6,319	0	0	649	18,029
2098	333	190	0	0	20	543
	296,035	98,503	8,180	54,882	99,040	556,639

* Includes GTCC disposal expenditures in years 2091 and 2092

TABLE 3.4
SCHEDULE OF ANNUAL EXPENDITURES
SAFSTOR, UNIT 2
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2043	23,372	1,643	4	39	4,478	29,536
2044	31,331	8,309	1,001	7,030	4,714	52,385
2045	6,165	1,239	6	52	3,118	10,581
2046	6,165	1,239	6	52	3,118	10,581
2047	6,165	1,239	6	52	3,118	10,581
2048	5,170	1,039	6	53	2,643	8,909
2049	1,919	382	6	52	1,086	3,447
2050	1,919	382	6	52	1,086	3,447
2051	1,919	382	6	52	1,086	3,447
2052	1,925	383	6	53	1,089	3,456
2053	1,919	382	6	52	1,086	3,447
2054	1,919	382	6	52	1,086	3,447
2055	1,919	382	6	52	1,086	3,447
2056	1,925	383	6	53	1,089	3,456
2057	1,919	382	6	52	1,086	3,447
2058	1,919	382	6	52	1,086	3,447
2059	1,919	382	6	52	1,086	3,447
2060	1,925	383	6	53	1,089	3,456
2061	2,080	245	6	52	989	3,373
2062	2,080	245	6	52	989	3,373
2063	2,080	245	6	52	989	3,373
2064	2,086	246	6	53	991	3,382
2065	2,080	245	6	52	989	3,373
2066	2,080	245	6	52	989	3,373
2067	2,080	245	6	52	989	3,373
2068	2,086	246	6	53	991	3,382
2069	2,080	245	6	52	989	3,373
2070	2,080	245	6	52	989	3,373
2071	2,080	245	6	52	989	3,373
2072	2,086	246	6	53	991	3,382
2073	2,080	245	6	52	989	3,373
2074	2,080	245	6	52	989	3,373
2075	2,080	245	6	52	989	3,373
2076	2,086	246	6	53	991	3,382
2077	2,080	245	6	52	989	3,373
2078	2,080	245	6	52	989	3,373

TABLE 3.4 (continued)
SCHEDULE OF ANNUAL EXPENDITURES
SAFSTOR, UNIT 2
(thousands, 2004 dollars)

Year	Labor	Equipment & Materials	Transportation	Burial	Other *	Total
2079	2,080	245	6	52	989	3,373
2080	2,086	246	6	53	991	3,382
2081	2,080	245	6	52	989	3,373
2082	2,080	245	6	52	989	3,373
2083	2,080	245	6	52	989	3,373
2084	2,086	246	6	53	991	3,382
2085	2,080	245	6	52	989	3,373
2086	2,080	245	6	52	989	3,373
2087	2,080	245	6	52	989	3,373
2088	2,086	246	6	53	991	3,382
2089	2,080	245	6	52	989	3,373
2090	9,055	523	6	52	1,303	10,940
2091	28,798	2,569	59	117	2,070	33,613
2092	45,164	14,874	4,275	23,260	12,471	100,044
2093	37,346	7,080	1,734	13,564	5,753	65,478
2094	34,442	4,178	698	9,046	3,048	51,412
2095	28,876	3,119	290	3,748	2,223	38,257
2096	19,115	7,143	1	9	815	27,083
2097	17,900	8,054	0	0	649	26,603
2098	539	243	0	0	20	802
	383,019	74,197	8,343	59,228	91,277	616,063

* Includes GTCC disposal expenditures in years 2092 and 2093

TABLE 3.5
SUMMARY OF COSTS
SHARED SYSTEMS and STRUCTURES
(thousands, 2004 dollars)

	UNIT 1	UNIT 2	TOTAL
STRUCTURES			
Contaminated Soil	$2,589	$1,110	$3,699
Mixed/Hazardous Waste	$5,418	5,418	$10,837
Shared Miscellaneous Site Structures	$0	$2,310	$2,310
Steam Generator Blowdown Treatment Facility	$0	$951	$951
Subtotal	$8,008	$9,789	$17,796
SYSTEMS			
Auxiliary Steam - Insulated	$21	$15	$36
Condensate Polish Filter Demin	$22	$0	$22
Condensate Polish Filter Demin - Ins	$64	$0	$64
Demineralized Makeup Water - RCA	$29	$15	$44
Demineralized Makeup Water	$14	$5	$19
Domestic/Makeup/Service Water	$161	$8	$169
Domestic/Makeup/Service Water-Ins	$3	$1	$4
Domestic/Makeup/Service Water-Ins-RCA	$30	$0	$30
Domestic/Makeup/Service Water - RCA	$263	$58	$321
Fire Protection	$63	$48	$111
Fire Protection - Insulated	$6	$5	$11
Fire Protection - Insulated - RCA	$6	$16	$21
Fire Protection - RCA	$71	$179	$250
Neutralization Basin Recirculation	$16	$0	$16
Primary Water	$605	$570	$1,175
Primary Water - Insulated	$5	$6	$11
Service & Instrument Air	$23	$18	$41
Service & Instrument Air - Ins	$12	$9	$21
Service & Instrument Air - Ins - RCA	$136	$93	$230
Service & Instrument Air - Ins	$12	$9	$21
SGBTF Blowdown - Insulated	$22	$2,014	$2,036
SGBTF Demin - Ins - RCA	$0	$110	$110
SGBTF Demin - RCA	$0	$229	$229
SGBTF HVAC	$52	$0	$52
SGBTF Misc - RCA	$17	$0	$17

TABLE 3.5 (continued)
SUMMARY OF COSTS
SHARED SYSTEMS and STRUCTURES
(thousands, 2004 dollars)

	UNIT 1	UNIT 2	TOTAL
SYSTEMS			
SGBTF Miscellaneous - RCA	$0	$87	$87
SGBTF Waste Management	$10	$192	$202
SGBTF Waste Management - Insulated	$90	$127	$218
Sodium Hypochlorite	$0	$41	$41
Water Treatment - Insulated	$35	$0	$35
Water Treatment	$61	$0	$61
Subtotal	$1,846	$3,856	$5,702
MISCELLANEOUS COMPONENTS			
Shared Refueling Equipment (20)			
Valves & Piping for Cond Storage Tank Interconnection			
Turbine Lube Oil Storage Tank			
Waste Oil Storage Tank			
Miscellaneous Small Bore Piping			
Valves & Piping for Holdup Tanks Interconnection			
Valves & Piping for Aerated Waste Strge Tank Interconnect			
SGBTF Electrical (9)			
Tank,Valves, Piping - UHS Valves & Emergency Air			
Piping for Waste Management System Interconnects			
Clean Miscellaneous Components			$21
Contaminated Miscellaneous Component			$113
TOTAL			**$23,632**

4. SCHEDULE ESTIMATE

The schedules for the decommissioning scenarios considered in this study follow the sequence presented in the AIF/NESP-036 study, with minor changes to reflect recent experience and site-specific constraints. In addition, the scheduling has been revised to reflect the spent fuel management plans described in Section 3.4.1.

A schedule or sequence of activities is presented in Figure 4.1 for the DECON decommissioning alternative. The schedule is also representative of the work activities identified in the delayed dismantling scenarios, absent any spent fuel constraints. The scheduling sequence assumes that fuel is removed from the spent fuel pools within the first 5½ years after operations cease. The key activities listed in the schedule do not reflect a one-to-one correspondence with those activities in the cost tables, but reflect dividing some activities for clarity and combining others for convenience. The schedule was prepared using the "Microsoft Project 2002" computer software.[30]

4.1 SCHEDULE ESTIMATE ASSUMPTIONS

The schedule reflects the results of a precedence network developed for the site decommissioning activities, *i.e.*, a PERT (Program Evaluation and Review Technique) Software Package. The work activity durations used in the precedence network reflect the actual man-hour estimates from the cost tables, adjusted by stretching certain activities over their slack range and shifting the start and end dates of others. The following assumptions were made in the development of the decommissioning schedule:

- The fuel handling buildings are isolated until such time that all spent fuel has been discharged from the spent fuel pools to the DOE or to the ISFSI. Decontamination and dismantling of the storage pools is initiated once the transfer of spent fuel to the ISFSI or DOE is complete.

- All work (except vessel and internals removal) is performed during an 8-hour workday, 5 days per week, with no overtime. There are eleven paid holidays per year.

- Reactor and internals removal activities are performed by using separate crews for different activities working on different shifts, with a corresponding backshift charge for the second shift.

- Multiple crews work parallel activities to the maximum extent possible, consistent with optimum efficiency, adequate access for cutting, removal and laydown space, and with the stringent safety measures necessary during demolition of heavy components and structures.

- For plant systems removal, the systems with the longest removal durations in areas on the critical path are considered to determine the duration of the activity.

4.2 PROJECT SCHEDULE

The period-dependent costs presented in the detailed cost tables are based upon the durations developed in the schedule for decommissioning. Durations are established between several milestones in each project period; these durations are used to establish a critical path for the entire project. In turn, the critical path duration for each period is used as the basis for determining the period-dependent costs. A second critical path is also shown for the spent fuel cooling period, which determines the release of the fuel handling buildings for final decontamination.

Project timelines are provided in Figures 4.2 and 4.3. Milestone dates are based on shutdown dates for Unit 1 and 2 of March 1, 2036 and April 6, 2043, respectively.

FIGURE 4.1

ACTIVITY SCHEDULE

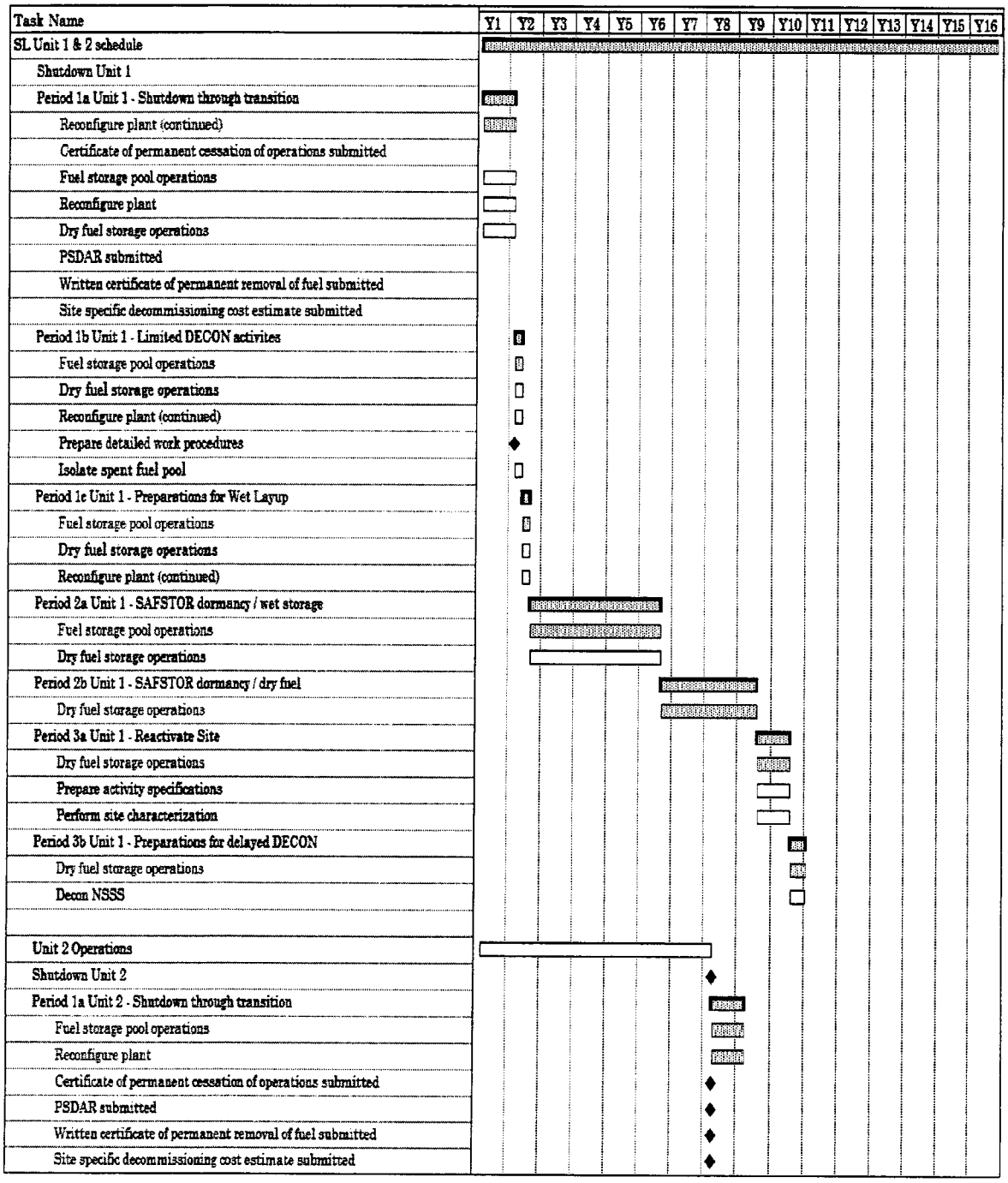


FIGURE 4.1

ACTIVITY SCHEDULE (continued)

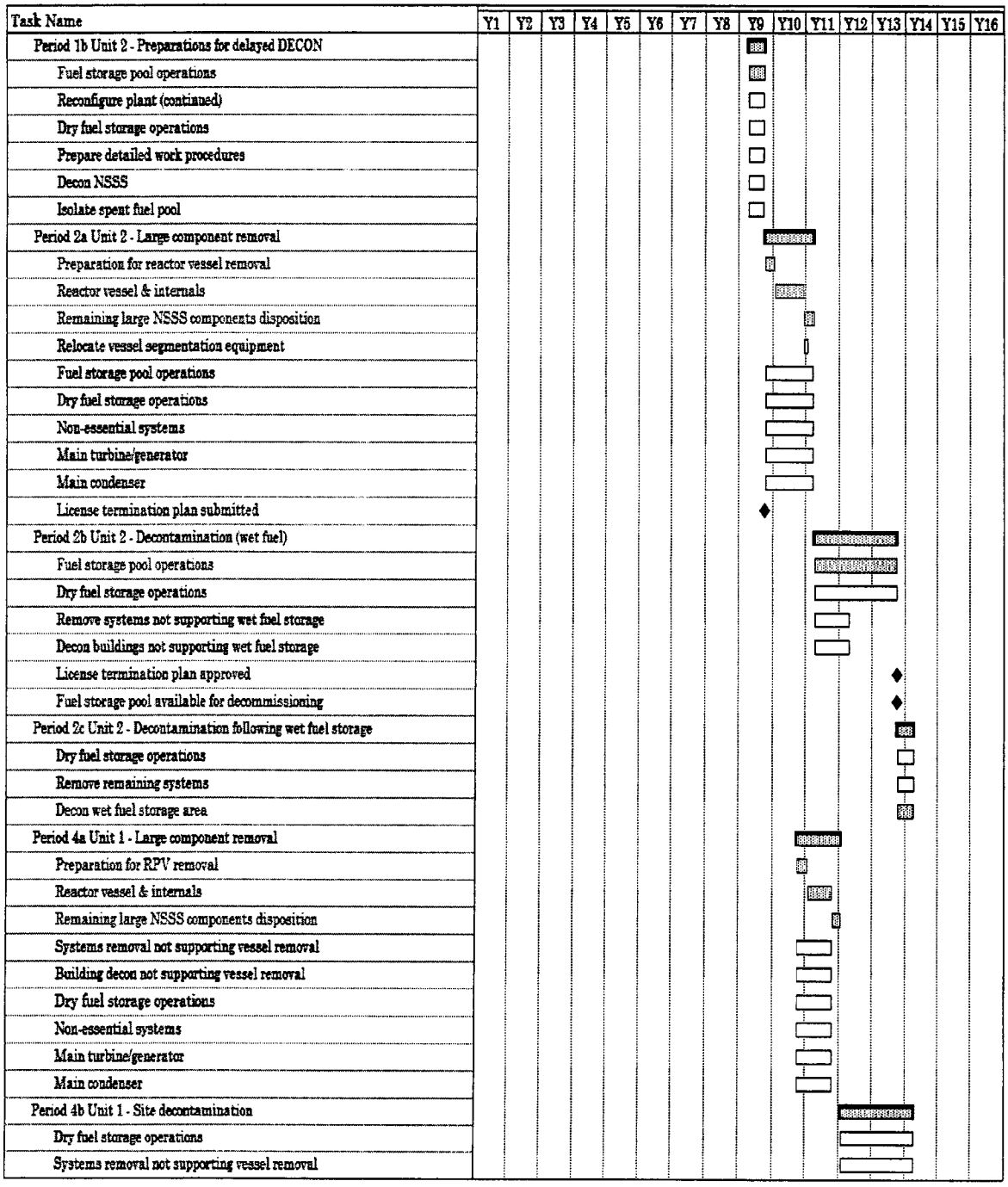


FIGURE 4.1

ACTIVITY SCHEDULE (continued)

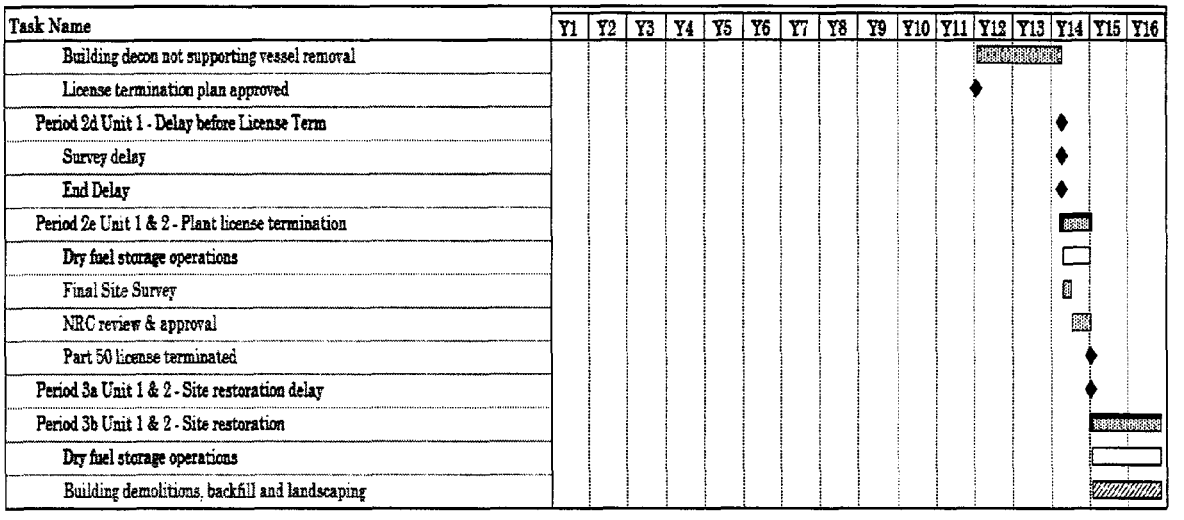


FIGURE 4.2
DECOMMISSIONING TIMELINE
DECON
(not to scale)

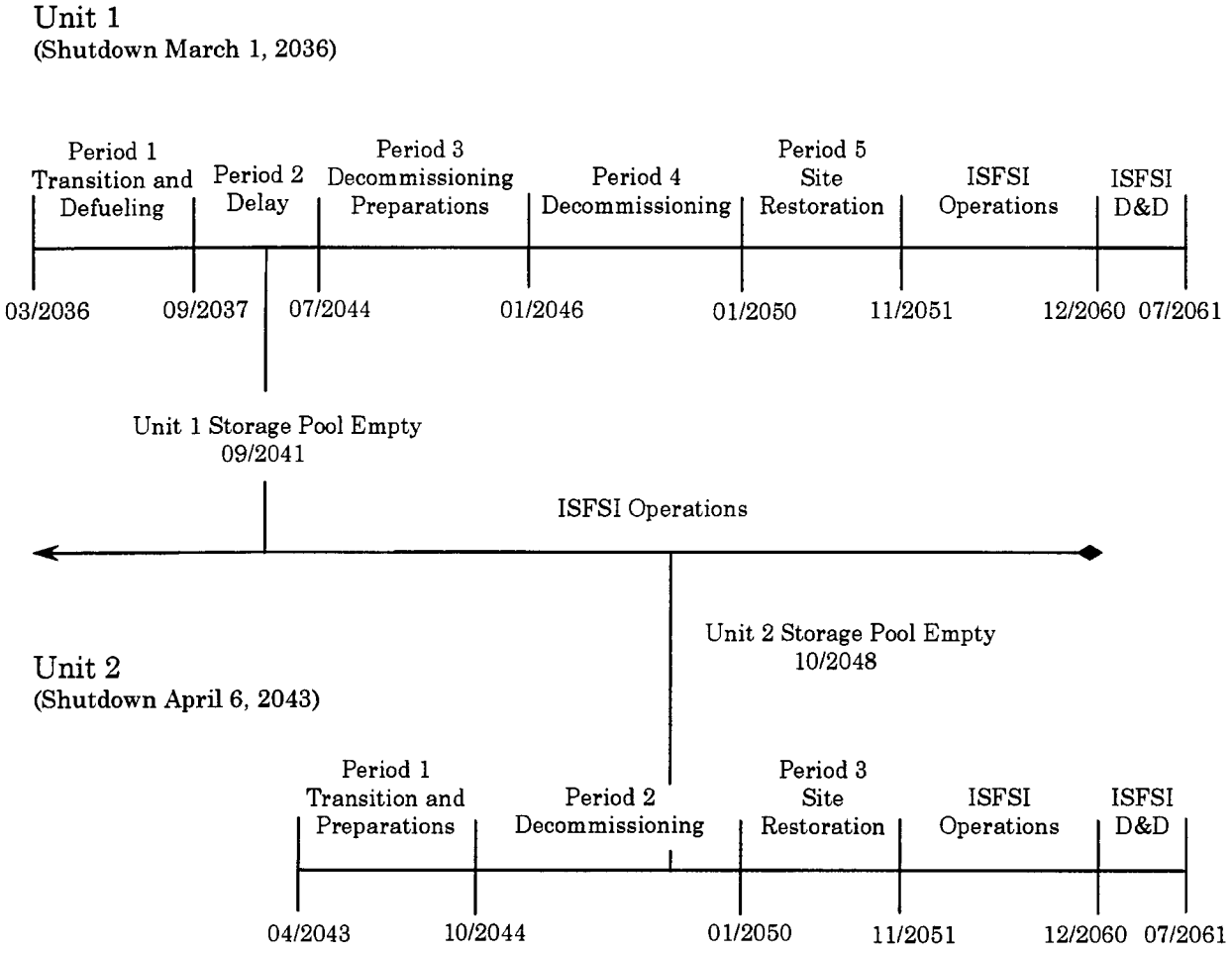
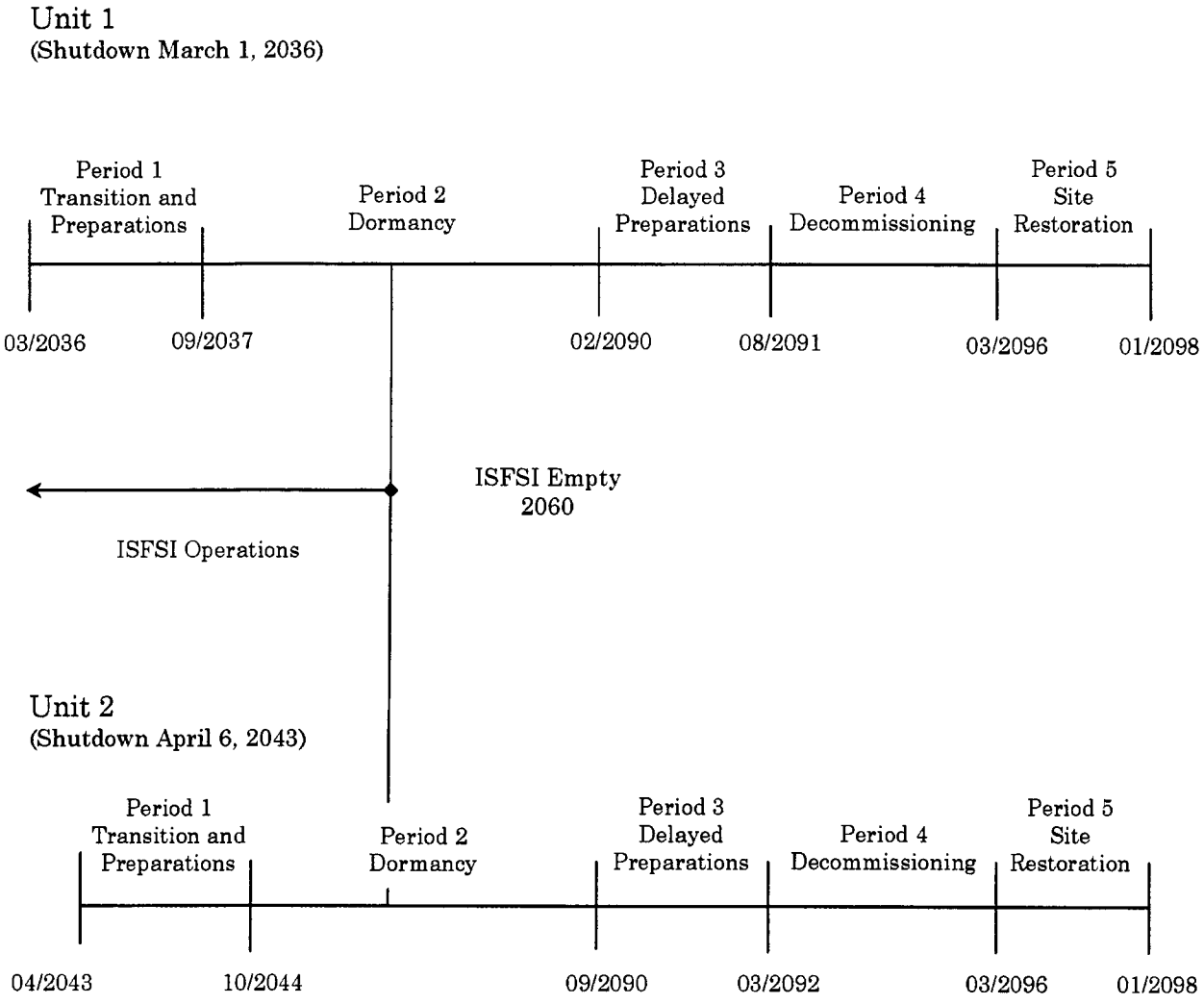


FIGURE 4.3
DECOMMISSIONING TIMELINE
SAFSTOR
(not to scale)



5. RADIOACTIVE WASTES

The objectives of the decommissioning process are the removal of all radioactive material from the site that would restrict its future use and the termination of the NRC license(s). This currently requires the remediation of all radioactive material at the site in excess of applicable legal limits. Under the Atomic Energy Act,[31] the NRC is responsible for protecting the public from sources of ionizing radiation. Title 10 of the Code of Federal Regulations delineates the production, utilization, and disposal of radioactive materials and processes. In particular, §71 defines radioactive material as it pertains to transportation and §61 specifies its disposition.

Most of the materials being transported for controlled burial are categorized as Low Specific Activity (LSA) or Surface Contaminated Object (SCO) materials containing Type A quantities, as defined in 49 CFR §173-178. Shipping containers are required to be Industrial Packages (IP-1, IP-2 or IP-3, as defined in subpart 173.411). For this study, commercially available steel containers are presumed to be used for the disposal of piping, small components, and concrete. Larger components can serve as their own containers, with proper closure of all openings, access ways, and penetrations.

The volumes of radioactive waste generated during the various decommissioning activities at the site are shown on a line-item basis in Appendix C and D and summarized in Tables 5.1 and 5.2. The quantified waste volume summaries shown in these tables are consistent with §61 classifications. The volumes are calculated based on the exterior dimensions for containerized material and on the displaced volume of components serving as their own waste containers.

The reactor vessel and internals are categorized as large quantity shipments and, accordingly, will be shipped in reusable, shielded truck casks with disposable liners. In calculating disposal costs, the burial fees are applied against the liner volume, as well as the special handling requirements of the payload. Packaging efficiencies are lower for the highly activated materials (greater than Type A quantity waste), where high concentrations of gamma-emitting radionuclides limit the capacity of the shipping canisters.

No process system containing/handling radioactive substances at shutdown is presumed to meet material release criteria by decay alone, *i.e.*, systems radioactive at shutdown will still be radioactive over the time period during which the decommissioning is accomplished, due to the presence of long-lived radionuclides.

While the dose rates decrease with time, radionuclides such as ^{137}Cs will still control the disposition requirements.

The waste material generated in the decontamination and dismantling of the nuclear station is primarily generated during Period 2 of DECON and Period 4 of SAFSTOR. Material that is considered potentially contaminated when removed from the radiologically controlled area is sent to processing facilities in Tennessee for conditioning and disposal at a unit cost of $2.50 per pound (excluding transportation). Heavily contaminated components and activated materials are routed for controlled disposal. The disposal volumes reported in the tables reflect the savings resulting from reprocessing and recycling.

For purposes of constructing the estimates, the cost for disposal at the Envirocare facility was used as a proxy for future disposal facilities. A rate of $267 per cubic foot is used for containerized waste and other large components including the reactor coolant pump motors, miscellaneous steel, metal siding, scaffolding, and structural steel. Demolition debris is disposed of at a bulk rate of $163 per cubic foot, with dry active waste processed at $104 per cubic foot. For waste shipped for direct disposal, a State of Florida inspection fee of $1.95 per cubic foot is also included.

Since Envirocare is not able to receive the more highly radioactive components generated in the decontamination and dismantling of the reactor, disposal costs for the Class B and C material are based upon Barnwell rates. An average disposal rate of $462 per cubic foot is used for this material, with additional surcharges for activity, dose rate, and/or handling added as appropriate for the particular package.

TABLE 5.1
DECOMMISSIONING WASTE SUMMARY
DECON

	Waste Class [1]	Volume (cubic feet)	Weight (pounds)
Low-Level Radioactive Waste			
	A	236,278	18,853,746
	B	17,264	2,451,549
	C	804	96,432
Geologic Repository (Greater-than Class C)			
	>C	1,121	228,632
Total [2]		255,466	21,630,359
Processed Waste (Off Site)			12,234,877
Scrap Metal			163,964,000

[1] Waste is classified according to the requirements as delineated in Title 10 CFR, Part 61.55
[2] Columns may not add due to rounding.

TABLE 5.2
DECOMMISSIONING WASTE SUMMARY
SAFSTOR

	Waste Class [1]	Volume (cubic feet)	Weight (pounds)
Low-Level Radioactive Waste			
	A	215,993	14,529,565
	B	12,181	1,389,805
	C	730	91,782
Geologic Repository (Greater-than Class C)			
	>C	1,121	228,632
Total [2]		230,024	16,239,677
Processed Waste (Off Site)			15,173,677
Scrap Metal			164,784,000

[1] Waste is classified according to the requirements as delineated in Title 10 CFR, Part 61.55
[2] Columns may not add due to rounding.

6. RESULTS

The analysis to estimate the costs to decommission St. Lucie relied upon the site-specific, technical information developed for a previous analysis prepared in 1998. While not an engineering study, the estimates provide FPL with sufficient information to assess their financial obligations, as they pertain to the eventual decommissioning of the nuclear station.

The estimates described in this report are based on numerous fundamental assumptions, including regulatory requirements, project contingencies, low-level radioactive waste disposal practices, high-level radioactive waste management options, and site restoration requirements. The decommissioning scenarios assume continued operation of the station's spent fuel pools for a minimum of 5½ years following the cessation of operations for continued cooling of the assemblies. An ISFSI will be used to safeguard the spent fuel, once sufficiently cooled, until such time that the DOE can complete the transfer of the assemblies to its repository.

The cost projected to promptly decommission (DECON) St. Lucie is estimated to be $1.038 billion. The majority of this cost (approximately 75.5%) is associated with the physical decontamination and dismantling of the nuclear units so that the licenses can be terminated. Another 16.2% is associated with the management, interim storage, and eventual transfer of the spent fuel. The remaining 8.3% is for the demolition of the designated structures and limited restoration of the site.

The cost projected for deferred decommissioning (SAFSTOR) is estimated to be $1.173 billion. The majority of this cost (approximately 81.6%) is associated with the placement of the two units in safe-storage, securing and maintaining the facilities over the dormancy period as well as the eventual physical decontamination and dismantling of the nuclear units so that the licenses can be terminated. Another 10.7% is associated with the management, interim storage, and eventual transfer of the spent fuel. The remaining 7.7% is for the demolition of the designated structures and limited restoration of the site.

The primary cost contributors, identified in Tables 6.1 and 6.2, are either labor-related or associated with the management and disposition of the radioactive waste. Program management is the largest single contributor to the overall cost. The magnitude of the expense is a function of both the size of the organization required to manage the decommissioning, as well as the duration of the program. It is assumed, for purposes of this analysis, that FPL will oversee the decommissioning program, using a DOC to manage the decommissioning labor force and the

associated subcontractors. The size and composition of the management organization varies with the decommissioning phase and associated site activities. However, once the operating licenses are terminated, the staff is substantially reduced for the conventional demolition and restoration of the site, and the long-term care of the spent fuel (for the DECON alternative).

As described in this report, the spent fuel pools will remain operational for a minimum of 5½ years following the cessation of operations. The pools will be isolated and an independent spent fuel island created. This will allow decommissioning operations to proceed in and around the pool area. Over the 5½-year period, the spent fuel will be packaged into transportable steel canisters for loading into a DOE-provided transport cask. The canisters will be stored in concrete overpacks at the ISFSI until the DOE is able to receive them. Dry storage of the fuel under a separate license provides additional flexibility in the event the DOE is not able to meet the current timetable for completing the transfer of assemblies to an off-site facility and minimizes the associated caretaking expenses.

The cost for waste disposal includes only those costs associated with the controlled disposition of the low-level radioactive waste generated from decontamination and dismantling activities, including plant equipment and components, structural material, filters, resins and dry-active waste. As described in Section 5, disposition of the low-level radioactive material required controlled disposal is at the Envirocare facility. Highly activated components, requiring additional isolation from the environment, are packaged for geologic disposal. The cost of geologic disposal is based upon a cost equivalent for spent fuel.

A significant portion of the metallic waste is designated for additional processing and treatment at an off-site facility. Processing reduces the volume of material requiring controlled disposal through such techniques and processes as survey and sorting, decontamination, and volume reduction. The material that cannot be unconditionally released is packaged for controlled disposal at one of the currently operating facilities. The cost identified in the summary tables for processing is all-inclusive, incorporating the ultimate disposition of the material.

Removal costs reflect the labor-intensive nature of the decommissioning process, as well as the management controls required to ensure a safe and successful program. Decontamination and packaging costs also have a large labor component that is based upon prevailing union wages. Non-radiological demolition is a natural extension of the decommissioning process. The methods employed in decontamination and dismantling are generally destructive and indiscriminate in inflicting collateral damage. With a work force mobilized to support

decommissioning operations, non-radiological demolition can be an integrated activity and a logical expansion of the work being performed in the process of terminating the operating license(s). Prompt demolition reduces future liabilities and can be more cost effective than deferral, due to the deterioration of the facilities (and therefore the working conditions) with time.

The reported cost for transport includes the tariffs and surcharges associated with moving large components and/or overweight shielded casks overland, as well as the general expense, *e.g.*, labor and fuel, of transporting material to the destinations identified in this report. For purposes of this analysis, material is primarily moved overland by truck.

Decontamination is used to reduce the plant's radiation fields and minimize worker exposure. Slightly contaminated material or material located within a contaminated area is sent to an off-site processing center, *i.e.*, this analysis does not assume that contaminated plant components and equipment can be decontaminated for uncontrolled release in-situ. Centralized processing centers have proven to be a more economical means of handling the large volumes of material produced in the dismantling of a nuclear unit.

License termination survey costs are associated with the labor intensive and complex activity of verifying that contamination has been removed from the site to the levels specified by the regulating agency. This process involves a systematic survey of all remaining plant surface areas and surrounding environs, sampling, isotopic analysis, and documentation of the findings. The status of any plant components and materials not removed in the decommissioning process will also require confirmation and will add to the expense of surveying the facilities alone.

The remaining costs include allocations for heavy equipment and temporary services, as well as for other expenses such as regulatory fees and the premiums for nuclear insurance. While site operating costs are greatly reduced following the final cessation of plant operations, certain administrative functions do need to be maintained either at a basic functional or regulatory level.

TABLE 6.1
SUMMARY OF DECOMMISSIONING COST ELEMENTS
DECON
(thousands of 2004 dollars)

Cost Element	Total	Percent of Total Cost
Decontamination	22,958	2.2
Removal	148,502	14.3
Packaging	22,679	2.2
Transportation	21,716	2.1
Waste Disposal	126,035	12.1
Off-site Waste Processing	36,809	3.5
Program Management [1]	451,229	43.5
Spent Fuel Pool Isolation	16,020	1.5
ISFSI Related	77,479	7.5
Insurance and Regulatory Fees	28,364	2.7
Energy	13,289	1.3
Characterization and Licensing Surveys	19,878	1.9
Property Taxes	30,696	3.0
Miscellaneous Equipment	13,257	1.3
Fixed Overhead	8,661	0.8
Total [2]	1,037,572	100.0
NRC License Termination	782,948	75.5
Spent Fuel Management [3]	168,122	16.2
Site Restoration	86,502	8.3

[1] Includes engineering and security
[2] Columns may not add due to rounding
[3] Includes "ISFSI Related" capital and loading costs as well as the associated period-dependent expenditures, *e.g.*, program management, security, fees and taxes

TABLE 6.2
SUMMARY OF DECOMMISSIONING COST ELEMENTS
SAFSTOR
(thousands of 2004 dollars)

Cost Element	Total	Percent of Total Cost
Decontamination	18,030	1.5
Removal	148,913	12.7
Packaging	17,601	1.5
Transportation	16,526	1.4
Waste Disposal	93,697	8.0
Off-site Waste Processing	45,258	3.9
Program Management [1]	547,042	46.6
Spent Fuel Pool Isolation	16,020	1.4
ISFSI Related	74,961	6.4
Insurance and Regulatory Fees	36,223	3.1
Energy	22,746	1.9
Characterization and Licensing Surveys	21,279	1.8
Property Taxes	69,915	6.0
Miscellaneous Equipment	30,144	2.6
Fixed Overhead	14,348	1.2
Total [2]	1,172,702	100.0
NRC License Termination	956,421	81.6
Spent Fuel Management [3]	125,407	10.7
Site Restoration	90,874	7.7

[1] Includes engineering and security
[2] Columns may not add due to rounding
[3] Includes "ISFSI Related" capital and loading costs as well as the associated period-dependent expenditures, *e.g.*, program management, security, fees and taxes

7. REFERENCES

1. U.S. Code of Federal Regulations, Title 10, Parts 30, 40, 50, 51, 70 and 72, "General Requirements for Decommissioning Nuclear Facilities," Nuclear Regulatory Commission, Federal Register Volume 53, Number 123 (p 24018 et seq.), June 27, 1988.

2. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," October 2003.

3. U.S. Code of Federal Regulations, Title 10, Part 20, Subpart E, "Radiological Criteria for License Termination."

4. U.S. Code of Federal Regulations, Title 10, Parts 20 and 50, "Entombment Options for Power Reactors," Advanced Notice of Proposed Rulemaking, Federal Register Volume 66, Number 200, October 16, 2001.

5. U.S. Code of Federal Regulations, Title 10, Parts 2, 50 and 51, "Decommissioning of Nuclear Power Reactors," Nuclear Regulatory Commission, Federal Register Volume 61 (p 39278 et seq.), July 29, 1996.

6. "Nuclear Waste Policy Act of 1982 and Amendments," U.S. Department of Energy's Office of Civilian Radioactive Management, 1982.

7. Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, and Yankee Atomic Power Company v. United States, U.S. Court of Appeals for the Federal Circuit decision, Docket No. 99-5138, -5139, -5140, August 31, 2000.

8. U.S. Code of Federal Regulations, Title 10, Part 50, "Domestic Licensing of Production and Utilization Facilities," Subpart 54 (bb), "Conditions of Licenses."

9. "Low-Level Radioactive Waste Policy Act," Public Law 96-573, 1980.

10. "Low-Level Radioactive Waste Policy Amendments Act of 1985," Public Law 99-240, January 15, 1986.

7. REFERENCES
(continued)

11. U.S. Code of Federal Regulations, Title 10, Part 20, Subpart E, "Radiological Criteria for License Termination," Federal Register, Volume 62, Number 139 (p 39058 et seq.), July 21, 1997.

12. "Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination," EPA Memorandum OSWER No. 9200.4-18, August 22, 1997.

13. U.S. Code of Federal Regulations, Title 40, Part 141.16, "Maximum contaminant levels for beta particle and photon radioactivity from man-made radionuclides in community water systems."

14. "Memorandum of Understanding Between the Environmental Protection Agency and the Nuclear Regulatory Commission: Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites," OSWER 9295.8-06a, October 9, 2002.

15. "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," NUREG/CR-1575, Rev. 1, EPA 402-R-97-016, Rev. 1, August 2000.

16. "Decommissioning Cost Study for the St. Lucie Plant, Units 1 and 2," Document No. F02-1297-002, Rev. 1, TLG Services, Inc., October 1999.

17. T.S. LaGuardia et al., "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," AIF/NESP-036, May 1986.

18. W.J. Manion and T.S. LaGuardia, "Decommissioning Handbook," U.S. Department of Energy, DOE/EV/10128-1, November 1980.

19. "Building Construction Cost Data 2004," Robert Snow Means Company, Inc., Kingston, Massachusetts.

20. Project and Cost Engineers' Handbook, Second Edition, p. 239, American Association of Cost Engineers, Marcel Dekker, Inc., New York, New York, 1984.

21. "Technical, Schedule, and Cost Uncertainties of the Yucca Mountain Repository Project," GAO-02-191, December 2001.

7. REFERENCES
(continued)

22. "Acceptance Priority Ranking & Annual Capacity Report," DOE/RW-0567, July 2004.

23. "Civilian Radioactive Waste Management System Total System Description," Revision 02 (TDR-CRW-SE-000002), DOE/RW-0500, September 2001.

24. U.S. Department of Transportation, Title 49 of the Code of Federal Regulations, "Transportation," Parts 173 through 178, 1996.

25. Tri-State Motor Transit Company, published tariffs, Interstate Commerce Commission (ICC), Docket No. MC-427719 Rules Tariff, March 2004, Radioactive Materials Tariff, January 2004.

26. J.C. Evans et al., "Long-Lived Activation Products in Reactor Materials" NUREG/CR-3474, Pacific Northwest Laboratory for the Nuclear Regulatory Commission. August 1984.

27. R.I. Smith, G.J. Konzek, W.E. Kennedy, Jr., "Technology, Safety and Costs of Decommissioning a Reference Pressurized Water Reactor Power Station," NUREG/CR-0130 and addenda, Pacific Northwest Laboratory for the Nuclear Regulatory Commission. June 1978.

28. H.D. Oak, et al., "Technology, Safety and Costs of Decommissioning a Reference Boiling Water Reactor Power Station," NUREG/CR-0672 and addenda, Pacific Northwest Laboratory for the Nuclear Regulatory Commission. June 1980.

29. "Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors," 10 CFR Parts 50 and 140, Federal Register Notice, Vol. 62, No. 210, October 30, 1997.

30. "Microsoft Project Professional 2002," Microsoft Corporation, Redmond, WA.

31. "Atomic Energy Act of 1954," (68 Stat. 919).

APPENDIX A

UNIT COST FACTOR DEVELOPMENT

APPENDIX A
UNIT COST FACTOR DEVELOPMENT

Example: Unit Factor for Removal of Contaminated Heat Exchanger < 3,000 lbs.

1. SCOPE

Heat exchangers weighing < 3,000 lbs. will be removed in one piece using a crane or small hoist. They will be disconnected from the inlet and outlet piping. The heat exchanger will be sent to the waste processing area.

2. CALCULATIONS

Act ID	Activity Description	Activity Duration (minutes)	Critical Duration (minutes)*
a	Remove insulation	60	(b)
b	Mount pipe cutters	60	60
c	Install contamination controls	20	(b)
d	Disconnect inlet and outlet lines	60	60
e	Cap openings	20	(d)
f	Rig for removal	30	30
g	Unbolt from mounts	30	30
h	Remove contamination controls	15	15
i	Remove, wrap, send to waste processing area	60	60
	Totals (Activity/Critical)	355	255

Duration adjustment(s):	
+ Respiratory protection adjustment (50% of critical duration)	128
+ Radiation/ALARA adjustment (37% of critical duration)	95
Adjusted work duration	478
+ Protective clothing adjustment (30% of adjusted duration)	143
Productive work duration	621
+ Work break adjustment (8.33 % of productive duration)	52
Total work duration (minutes)	673

***** Total duration = 11.217 hr *****

* alpha designators indicate activities that can be performed in parallel

APPENDIX A
(continued)

3. LABOR REQUIRED

Crew	Number	Duration (hours)	Rate ($/hr)	Cost
Laborers	3.00	11.217	$25.90	$871.56
Craftsmen	2.00	11.217	$40.76	$914.41
Foreman	1.00	11.217	$41.74	$468.20
General Foreman	0.25	11.217	$44.14	$123.78
Fire Watch	0.05	11.217	$25.90	$14.53
Health Physics Technician	1.00	11.217	$43.79	$491.19
Total labor cost				$2,883.67

4. EQUIPMENT & CONSUMABLES COSTS

Equipment Costs	none
Consumables/Materials Costs	
-Blotting paper 50 @ $0.45 sq ft {1}	$22.50
-Plastic sheets/bags 50 @ $0.11/sq ft {2}	$5.50
-Gas torch consumables 1 @ $8.11/hr x 1 hr {3}	$8.11
Subtotal cost of equipment and materials	$36.11
Overhead & profit on equipment and materials @ 16.50 %	$5.96
Total costs, equipment & material	$42.07

TOTAL COST:

Removal of contaminated heat exchanger <3000 pounds:	**$2,925.74**
Total labor cost:	$2,883.67
Total equipment/material costs:	$42.07
Total craft labor man-hours required per unit:	81.884

5. NOTES AND REFERENCES

- Work difficulty factors were developed in conjunction with the Atomic Industrial Forum's (now NEI) program to standardize nuclear decommissioning cost estimates and are delineated in Volume 1, Chapter 5 of the "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," AIF/NESP-036, May 1986.

- References for equipment & consumables costs:

    1. www.mcmaster.com online catalog
    2. R.S. Means (2004) Section 01540-800-0200, page 17
    3. R.S. Means (2004) Section 01590-400-6360, page 25

- Material and consumable costs were adjusted using the regional indices for West Palm Beach, Florida.

APPENDIX B

UNIT COST FACTOR LISTING
(DECON: Power Block Structures Only)

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of clean instrument and sampling tubing, $/linear foot	0.30
Removal of clean pipe 0.25 to 2 inches diameter, $/linear foot	3.13
Removal of clean pipe >2 to 4 inches diameter, $/linear foot	4.55
Removal of clean pipe >4 to 8 inches diameter, $/linear foot	9.28
Removal of clean pipe >8 to 14 inches diameter, $/linear foot	17.61
Removal of clean pipe >14 to 20 inches diameter, $/linear foot	22.89
Removal of clean pipe >20 to 36 inches diameter, $/linear foot	33.68
Removal of clean pipe >36 inches diameter, $/linear foot	40.02
Removal of clean valve >2 to 4 inches	60.51
Removal of clean valve >4 to 8 inches	92.85
Removal of clean valve >8 to 14 inches	176.14
Removal of clean valve >14 to 20 inches	228.88
Removal of clean valve >20 to 36 inches	336.81
Removal of clean valve >36 inches	400.21
Removal of clean pipe hanger for small bore piping	19.84
Removal of clean pipe hanger for large bore piping	69.88
Removal of clean pump, <300 pound	156.28
Removal of clean pump, 300-1000 pound	443.74
Removal of clean pump, 1000-10,000 pound	1,740.39
Removal of clean pump, >10,000 pound	3,364.50
Removal of clean pump motor, 300-1000 pound	186.38
Removal of clean pump motor, 1000-10,000 pound	724.50
Removal of clean pump motor, >10,000 pound	1,630.13
Removal of clean heat exchanger <3000 pound	933.63
Removal of clean heat exchanger >3000 pound	2,348.36

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of clean feedwater heater/deaerator	6,626.42
Removal of clean moisture separator/reheater	13,631.16
Removal of clean tank, <300 gallons	201.07
Removal of clean tank, 300-3000 gallon	634.70
Removal of clean tank, >3000 gallons, $/square foot surface area	5.44
Removal of clean electrical equipment, <300 pound	85.28
Removal of clean electrical equipment, 300-1000 pound	303.44
Removal of clean electrical equipment, 1000-10,000 pound	606.90
Removal of clean electrical equipment, >10,000 pound	1,451.54
Removal of clean electrical transformer < 30 tons	1,008.08
Removal of clean electrical transformer > 30 tons	2,903.08
Removal of clean standby diesel generator, <100 kW	1,029.67
Removal of clean standby diesel generator, 100 kW to 1 MW	2,298.27
Removal of clean standby diesel generator, >1 MW	4,757.89
Removal of clean electrical cable tray, $/linear foot	7.97
Removal of clean electrical conduit, $/linear foot	3.48
Removal of clean mechanical equipment, <300 pound	85.28
Removal of clean mechanical equipment, 300-1000 pound	303.44
Removal of clean mechanical equipment, 1000-10,000 pound	606.90
Removal of clean mechanical equipment, >10,000 pound	1,451.54
Removal of clean HVAC equipment, <300 pound	85.28
Removal of clean HVAC equipment, 300-1000 pound	303.44
Removal of clean HVAC equipment, 1000-10,000 pound	606.90
Removal of clean HVAC equipment, >10,000 pound	1,451.54
Removal of clean HVAC ductwork, $/pound	0.32

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of contaminated instrument and sampling tubing, $/linear foot	1.05
Removal of contaminated pipe 0.25 to 2 inches diameter, $/linear foot	13.87
Removal of contaminated pipe >2 to 4 inches diameter, $/linear foot	23.92
Removal of contaminated pipe >4 to 8 inches diameter, $/linear foot	39.45
Removal of contaminated pipe >8 to 14 inches diameter, $/linear foot	76.25
Removal of contaminated pipe >14 to 20 inches diameter, $/linear foot	91.60
Removal of contaminated pipe >20 to 36 inches diameter, $/linear foot	126.82
Removal of contaminated pipe >36 inches diameter, $/linear foot	149.92
Removal of contaminated valve >2 to 4 inches	301.15
Removal of contaminated valve >4 to 8 inches	364.19
Removal of contaminated valve >8 to 14 inches	729.89
Removal of contaminated valve >14 to 20 inches	927.66
Removal of contaminated valve >20 to 36 inches	1,235.57
Removal of contaminated valve >36 inches	1,466.53
Removal of contaminated pipe hanger for small bore piping	72.92
Removal of contaminated pipe hanger for large bore piping	229.17
Removal of contaminated pump, <300 pound	648.90
Removal of contaminated pump, 300-1000 pound	1,508.57
Removal of contaminated pump, 1000-10,000 pound	4,790.61
Removal of contaminated pump, >10,000 pound	11,667.90
Removal of contaminated pump motor, 300-1000 pound	641.75
Removal of contaminated pump motor, 1000-10,000 pound	1,951.54
Removal of contaminated pump motor, >10,000 pound	4,381.45
Removal of contaminated heat exchanger <3000 pound	2,925.74
Removal of contaminated heat exchanger >3000 pound	8,477.30

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of contaminated tank, <300 gallons	1,078.75
Removal of contaminated tank, >300 gallons, $/square foot	21.18
Removal of contaminated electrical equipment, <300 pound	502.31
Removal of contaminated electrical equipment, 300-1000 pound	1,220.18
Removal of contaminated electrical equipment, 1000-10,000 pound	2,348.95
Removal of contaminated electrical equipment, >10,000 pound	4,585.23
Removal of contaminated electrical cable tray, $/linear foot	24.23
Removal of contaminated electrical conduit, $/linear foot	11.10
Removal of contaminated mechanical equipment, <300 pound	559.27
Removal of contaminated mechanical equipment, 300-1000 pound	1,349.18
Removal of contaminated mechanical equipment, 1000-10,000 pound	2,593.16
Removal of contaminated mechanical equipment, >10,000 pound	4,585.23
Removal of contaminated HVAC equipment, <300 pound	559.27
Removal of contaminated HVAC equipment, 300-1000 pound	1,349.18
Removal of contaminated HVAC equipment, 1000-10,000 pound	2,593.16
Removal of contaminated HVAC equipment, >10,000 pound	4,585.23
Removal of contaminated HVAC ductwork, $/pound	1.52
Removal/plasma arc cut of contaminated thin metal components, $/linear in.	2.63
Additional decontamination of surface by washing, $/square foot	5.27
Additional decontamination of surfaces by hydrolasing, $/square foot	25.30
Decontamination rig hook up and flush, $/ 250 foot length	4,749.17
Chemical flush of components/systems, $/gallon	12.12
Removal of clean standard reinforced concrete, $/cubic yard	93.26
Removal of grade slab concrete, $/cubic yard	123.59
Removal of clean concrete floors, $/cubic yard	248.78

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of sections of clean concrete floors, $/cubic yard	723.82
Removal of clean heavily rein concrete w/#9 rebar, $/cubic yard	166.11
Removal of contaminated heavily rein concrete w/#9 rebar, $/cubic yard	1,433.83
Removal of clean heavily rein concrete w/#18 rebar, $/cubic yard	210.16
Removal of contaminated heavily rein concrete w/#18 rebar, $/cubic yard	1,898.34
Removal heavily rein concrete w/#18 rebar & steel embedments, $/cubic yard	311.21
Removal of below-grade suspended floors, $/cubic yard	248.78
Removal of clean monolithic concrete structures, $/cubic yard	597.80
Removal of contaminated monolithic concrete structures, $/cubic yard	1,432.20
Removal of clean foundation concrete, $/cubic yard	469.33
Removal of contaminated foundation concrete, $/cubic yard	1,334.19
Explosive demolition of bulk concrete, $/cubic yard	21.96
Removal of clean hollow masonry block wall, $/cubic yard	62.48
Removal of contaminated hollow masonry block wall, $/cubic yard	228.49
Removal of clean solid masonry block wall, $/cubic yard	62.48
Removal of contaminated solid masonry block wall, $/cubic yard	228.49
Backfill of below-grade voids, $/cubic yard	14.75
Removal of subterranean tunnels/voids, $/linear foot	73.57
Placement of concrete for below-grade voids, $/cubic yard	94.79
Excavation of clean material, $/cubic yard	2.05
Excavation of contaminated material, $/cubic yard	28.91
Removal of clean concrete rubble (tipping fee included), $/cubic yard	21.02
Removal of contaminated concrete rubble, $/cubic yard	18.78
Removal of building by volume, $/cubic foot	0.22
Removal of clean building metal siding, $/square foot	0.73

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Removal of contaminated building metal siding, $/square foot	2.85
Removal of standard asphalt roofing, $/square foot	3.93
Removal of transite panels, $/square foot	1.67
Scarifying contaminated concrete surfaces (drill & spall), $/square foot	10.31
Scabbling contaminated concrete floors, $/square foot	5.62
Scabbling contaminated concrete walls, $/square foot	6.17
Scabbling contaminated ceilings, $/square foot	55.49
Scabbling structural steel, $/square foot	4.92
Removal of clean overhead crane/monorail < 10 ton capacity	434.87
Removal of contaminated overhead crane/monorail < 10 ton capacity	1,296.47
Removal of clean overhead crane/monorail >10-50 ton capacity	1,043.71
Removal of contaminated overhead crane/monorail >10-50 ton capacity	3,110.98
Removal of polar crane > 50 ton capacity	4,373.33
Removal of gantry crane > 50 ton capacity	18,144.26
Removal of structural steel, $/pound	0.26
Removal of clean steel floor grating, $/square foot	3.21
Removal of contaminated steel floor grating, $/square foot	9.65
Removal of clean free standing steel liner, $/square foot	8.15
Removal of contaminated free standing steel liner, $/square foot	24.74
Removal of clean concrete-anchored steel liner, $/square foot	4.08
Removal of contaminated concrete-anchored steel liner, $/square foot	28.84
Placement of scaffolding in clean areas, $/square foot	12.23
Placement of scaffolding in contaminated areas, $/square foot	19.55
Landscaping with topsoil, $/acre	17,678.88
Cost of CPC B-88 LSA box & preparation for use	1,118.83

APPENDIX B

UNIT COST FACTOR LISTING
(Power Block Structures Only)

Unit Cost Factor	Cost/Unit($)
Cost of CPC B-25 LSA box & preparation for use	881.95
Cost of CPC B-12V 12 gauge LSA box & preparation for use	751.22
Cost of CPC B-144 LSA box & preparation for use	4,396.50
Cost of LSA drum & preparation for use	103.13
Cost of cask liner for CNSI 14 195 cask	9,170.02
Cost of cask liner for CNSI 8 120A cask (resins)	6,070.95
Cost of cask liner for CNSI 8 120A cask (filters)	6,070.95
Decontamination of surfaces with vacuuming, $/square foot	0.46

APPENDIX C

DETAILED COST ANALYSES

DECON

Page

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes: Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 1a - Shutdown through Transition																					
Period 1a Direct Decommissioning Activities																					
1a.1.1	SAFSTOR site characterization survey	-	-	-	-	-	-	345	104	449	449	-	-	-	-	-	-	-	-	-	-
1a.1.2	Prepare preliminary decommissioning cost	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
1a.1.3	Notification of Cessation of Operations									a											
1a.1.4	Remove fuel & source material									n/a											
1a.1.5	Notification of Permanent Defueling									a											
1a.1.6	Deactivate plant systems & process waste									a											
1a.1.7	Prepare and submit PSDAR	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.8	Review plant dwgs & specs	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
1a.1.9	Perform detailed rad survey									a											
1a.1.10	Estimate by-product inventory	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.11	End product description	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.12	Detailed by-product inventory	-	-	-	-	-	-	143	22	165	165	-	-	-	-	-	-	-	-	-	1,500
1a.1.13	Define major work sequence	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.14	Perform SER and EA	-	-	-	-	-	-	296	44	341	341	-	-	-	-	-	-	-	-	-	3,100
1a.1.15	Perform Site-Specific Cost Study	-	-	-	-	-	-	478	72	549	549	-	-	-	-	-	-	-	-	-	5,000
Activity Specifications																					
1a.1.16.1	Prepare plant and facilities for SAFSTOR	-	-	-	-	-	-	470	71	541	541	-	-	-	-	-	-	-	-	-	4,920
1a.1.16.2	Plant systems	-	-	-	-	-	-	398	60	458	458	-	-	-	-	-	-	-	-	-	4,167
1a.1.16.3	Plant structures and buildings	-	-	-	-	-	-	298	45	343	343	-	-	-	-	-	-	-	-	-	3,120
1a.1.16.4	Waste management	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.16.5	Facility and site dormancy	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.16	Total	-	-	-	-	-	-	1,549	232	1,781	1,781	-	-	-	-	-	-	-	-	-	16,207
Detailed Work Procedures																					
1a.1.17.1	Plant systems	-	-	-	-	-	-	113	17	130	130	-	-	-	-	-	-	-	-	-	1,183
1a.1.17.2	Facility closeout & dormancy	-	-	-	-	-	-	115	17	132	132	-	-	-	-	-	-	-	-	-	1,200
1a.1.17	Total	-	-	-	-	-	-	228	34	262	262	-	-	-	-	-	-	-	-	-	2,383
1a.1.18	Procure vacuum drying system	-	-	-	-	-	-	10	1	11	11	-	-	-	-	-	-	-	-	-	100
1a.1.19	Drain/de-energize non-cont. systems									a											
1a.1.20	Drain & dry NSSS									a											
1a.1.21	Drain/de-energize contaminated systems									a											
1a.1.22	Decon/secure contaminated systems									a											
1a.1	Subtotal Period 1a Activity Costs	-	-	-	-	-	-	3,775	618	4,393	4,393	-	-	-	-	-	-	-	-	-	35,890
Period 1a Collateral Costs																					
1a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,190	179	1,369	-	1,369	-	-	-	-	-	-	-	-	-
1a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
1a.3.3	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
1a.3	Subtotal Period 1a Collateral Costs	-	-	-	-	-	-	1,556	233	1,789	420	1,369	-	-	-	-	-	-	-	-	-
Period 1a Period-Dependent Costs																					
1a.4.1	Insurance	-	-	-	-	-	-	586	59	645	645	-	-	-	-	-	-	-	-	-	-
1a.4.2	Property taxes	-	-	-	-	-	-	2,398	240	2,638	2,638	-	-	-	-	-	-	-	-	-	-
1a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
1a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
1a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
1a.4.6	Plant energy budget	-	-	-	-	-	-	753	113	866	866	-	-	-	-	-	-	-	-	-	-
1a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
1a.4.8	Emergency Planning Fees	-	-	-	-	-	-	125	12	137	-	137	-	-	-	-	-	-	-	-	-
1a.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	997	149	1,146	-	1,146	-	-	-	-	-	-	-	-	-
1a.4.10	ISFSI Operating Costs	-	-	-	-	-	-	37	5	42	-	42	-	-	-	-	-	-	-	-	-
1a.4.11	INPO Fees	-	-	-	-	-	-	450	45	495	495	-	-	-	-	-	-	-	-	-	-
1a.4.12	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1a Period-Dependent Costs (continued)																					
1a4.13	Security Staff Cost	-	-	-	-	-	-	541	81	622	622	-	-	-	-	-	-	-	-	-	27,114
1a4.14	Utility Staff Cost	-	-	-	-	-	-	24,097	3,615	27,712	27,712	-	-	-	-	-	-	-	-	-	438,000
1a4	Subtotal Period 1a Period-Dependent Costs	-	567	5	5	-	42	30,380	4,480	35,479	34,153	1,325	-	-	404	-	-	-	8,103	99	465,114
1a.0	TOTAL PERIOD 1a COST	-	567	5	5	-	42	35,710	5,331	41,661	38,966	2,694	-	-	404	-	-	-	8,103	99	501,004
PERIOD 1b - SAFSTOR Limited DECON Activities																					
Period 1b Direct Decommissioning Activities																					
Decontamination of Site Buildings																					
1b.1.1.1	Reactor	813	-	-	-	-	-	-	407	1,220	1,220	-	-	-	-	-	-	-	-	22,339	-
1b.1.1.2	Fuel Handling	321	-	-	-	-	-	-	161	482	482	-	-	-	-	-	-	-	-	8,003	-
1b.1.1.3	Reactor Auxiliary	369	-	-	-	-	-	-	184	553	553	-	-	-	-	-	-	-	-	10,511	-
1b.1.1	Totals	1,503	-	-	-	-	-	-	752	2,255	2,255	-	-	-	-	-	-	-	-	40,852	-
1b.1	Subtotal Period 1b Activity Costs	1,503	-	-	-	-	-	-	752	2,255	2,255	-	-	-	-	-	-	-	-	40,852	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
1b.3.2	Process liquid waste	147	-	52	318	-	750	-	314	1,581	1,581	-	-	-	-	1,011	-	-	127,380	199	-
1b.3.3	Small tool allowance	-	25	-	-	-	-	-	4	29	29	-	-	-	-	-	-	-	-	-	-
1b.3.4	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
1b.3.5	Fixed Overhead	-	-	-	-	-	-	92	14	106	106	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Collateral Costs	849	25	52	318	-	750	95	437	2,527	2,527	-	-	-	-	1,011	-	-	127,380	199	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	626	-	-	-	-	-	-	157	783	783	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	148	15	163	163	-	-	-	-	-	-	-	-	-	-
1b.4.3	Property taxes	-	-	-	-	-	-	330	33	363	363	-	-	-	-	-	-	-	-	-	-
1b.4.4	Health physics supplies	-	195	-	-	-	-	-	49	244	244	-	-	-	-	-	-	-	-	-	-
1b.4.5	Heavy equipment rental	-	83	-	-	-	-	-	12	95	95	-	-	-	-	-	-	-	-	-	-
1b.4.6	Disposal of DAW generated	-	-	7	7	-	58	-	16	88	88	-	-	-	554	-	-	-	11,105	136	-
1b.4.7	Plant energy budget	-	-	-	-	-	-	190	28	218	218	-	-	-	-	-	-	-	-	-	-
1b.4.8	NRC Fees	-	-	-	-	-	-	67	7	74	74	-	-	-	-	-	-	-	-	-	-
1b.4.9	Emergency Planning Fees	-	-	-	-	-	-	31	3	35	-	35	-	-	-	-	-	-	-	-	-
1b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	251	38	289	-	289	-	-	-	-	-	-	-	-	-
1b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1b.4.12	NEI Fees	-	-	-	-	-	-	33	3	36	36	-	-	-	-	-	-	-	-	-	-
1b.4.13	Security Staff Cost	-	-	-	-	-	-	136	20	157	157	-	-	-	-	-	-	-	-	-	6,834
1b.4.14	Utility Staff Cost	-	-	-	-	-	-	6,074	911	6,985	6,985	-	-	-	-	-	-	-	-	-	110,400
1b.4	Subtotal Period 1b Period-Dependent Costs	626	277	7	7	-	58	7,269	1,294	9,539	9,205	334	-	-	554	-	-	-	11,105	136	117,234
1b.0	TOTAL PERIOD 1b COST	2,979	302	58	325	-	808	7,364	2,483	14,320	13,986	334	-	-	554	1,011	-	-	138,485	41,187	117,234
PERIOD 1c - Preparations for SAFSTOR Dormancy																					
Period 1c Direct Decommissioning Activities																					
1c.1.1	Prepare support equipment for storage	-	375	-	-	-	-	-	56	431	431	-	-	-	-	-	-	-	-	3,000	-
1c.1.2	Install containment pressure equal. lines	-	29	-	-	-	-	-	4	33	33	-	-	-	-	-	-	-	-	700	-
1c.1.3	Interim survey prior to dormancy	-	-	-	-	-	-	733	220	953	953	-	-	-	-	-	-	-	-	15,753	-
1c.1.4	Secure building accesses									a											
1c.1.5	Prepare & submit interim report	-	-	-	-	-	-	56	8	64	64	-	-	-	-	-	-	-	-	-	583
1c.1	Subtotal Period 1c Activity Costs	-	403	-	-	-	-	789	289	1,481	1,481	-	-	-	-	-	-	-	-	19,453	583

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1c Additional Costs																					
1c.2.1	Spent Fuel Pool Isolation	-	-	-	-	-	-	8,358	1,254	9,612	9,612	-	-	-	-	-	-	-	-	-	-
1c.2	Subtotal Period 1c Additional Costs	-	-	-	-	-	-	8,358	1,254	9,612	9,612	-	-	-	-	-	-	-	-	-	-
Period 1c Collateral Costs																					
1c.3.1	Process liquid waste	179	-	63	388	-	902	-	380	1,912	1,912	-	-	-	-	1,233	-	-	155,365	242	-
1c.3.2	Small tool allowance	-	3	-	-	-	-	-	0	3	3	-	-	-	-	-	-	-	-	-	-
1c.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
1c.3.4	Fixed Overhead	-	-	-	-	-	-	93	14	107	107	-	-	-	-	-	-	-	-	-	-
1c.3	Subtotal Period 1c Collateral Costs	179	3	63	388	-	902	96	394	2,025	2,025	-	-	-	-	1,233	-	-	155,365	242	-
Period 1c Period-Dependent Costs																					
1c.4.1	Insurance	-	-	-	-	-	-	149	15	164	164	-	-	-	-	-	-	-	-	-	-
1c.4.2	Property taxes	-	-	-	-	-	-	333	33	367	367	-	-	-	-	-	-	-	-	-	-
1c.4.3	Health physics supplies	-	126	-	-	-	-	-	31	157	157	-	-	-	-	-	-	-	-	-	-
1c.4.4	Heavy equipment rental	-	83	-	-	-	-	-	13	96	96	-	-	-	-	-	-	-	-	-	-
1c.4.5	Disposal of DAW generated	-	-	1	1	-	11	-	3	16	16	-	-	-	103	-	-	-	2,065	25	-
1c.4.6	Plant energy budget	-	-	-	-	-	-	192	29	221	221	-	-	-	-	-	-	-	-	-	-
1c.4.7	NRC Fees	-	-	-	-	-	-	68	7	74	74	-	-	-	-	-	-	-	-	-	-
1c.4.8	Emergency Planning Fees	-	-	-	-	-	-	32	3	35	-	35	-	-	-	-	-	-	-	-	-
1c.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	254	38	292	-	292	-	-	-	-	-	-	-	-	-
1c.4.10	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1c.4.11	NEI Fees	-	-	-	-	-	-	33	3	37	37	-	-	-	-	-	-	-	-	-	-
1c.4.12	Security Staff Cost	-	-	-	-	-	-	138	21	159	159	-	-	-	-	-	-	-	-	-	6,909
1c.4.13	Utility Staff Cost	-	-	-	-	-	-	6,140	921	7,061	7,061	-	-	-	-	-	-	-	-	-	111,600
1c.4	Subtotal Period 1c Period-Dependent Costs	-	209	1	1	-	11	7,348	1,118	8,689	8,351	338	-	-	103	-	-	-	2,065	25	118,509
1c.0	TOTAL PERIOD 1c COST	179	615	64	389	-	913	16,591	3,055	21,807	21,469	338	-	-	103	1,233	-	-	157,430	19,721	119,092
PERIOD 1 TOTALS		3,158	1,484	128	720	-	1,763	59,665	10,869	77,788	74,422	3,366	-	-	1,062	2,243	-	-	304,018	61,007	737,330
PERIOD 2a - SAFSTOR Dormancy with Wet Spent Fuel Storage																					
Period 2a Direct Decommissioning Activities																					
2a.1.1	Quarterly Inspection									a											
2a.1.2	Semi-annual environmental survey									a											
2a.1.3	Prepare reports									a											
2a.1.4	Bituminous roof replacement	-	-	-	-	-	-	2	0	3	3	-	-	-	-	-	-	-	-	-	-
2a.1.5	Maintenance supplies	-	-	-	-	-	-	503	126	629	629	-	-	-	-	-	-	-	-	-	-
2a.1	Subtotal Period 2a Activity Costs	-	-	-	-	-	-	505	126	631	631	-	-	-	-	-	-	-	-	-	-
Period 2a Collateral Costs																					
2a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	24,717	3,708	28,424	-	28,424	-	-	-	-	-	-	-	-	-
2a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
2a.3.3	Fixed Overhead	-	-	-	-	-	-	1,459	219	1,678	1,678	-	-	-	-	-	-	-	-	-	-
2a.3	Subtotal Period 2a Collateral Costs	-	-	-	-	-	-	26,179	3,927	30,106	1,681	28,424	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																					
2a.4.1	Insurance	-	-	-	-	-	-	1,257	126	1,383	-	1,383	-	-	-	-	-	-	-	-	-
2a.4.2	Property taxes	-	-	-	-	-	-	3,290	329	3,619	-	3,619	-	-	-	-	-	-	-	-	-
2a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
2a.4.4	Disposal of DAW generated	-	-	20	21	-	168	-	47	256	256	-	-	-	1,617	-	-	-	32,412	397	-
2a.4.5	Plant energy budget	-	-	-	-	-	-	2,260	339	2,599	-	2,599	-	-	-	-	-	-	-	-	-
2a.4.6	NRC Fees	-	-	-	-	-	-	936	94	1,030	1,030	-	-	-	-	-	-	-	-	-	-
2a.4.7	Emergency Planning Fees	-	-	-	-	-	-	500	50	550	-	550	-	-	-	-	-	-	-	-	-
2a.4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	3,986	598	4,584	-	4,584	-	-	-	-	-	-	-	-	-
2a.4.9	ISFSI Operating Costs	-	-	-	-	-	-	146	22	168	-	168	-	-	-	-	-	-	-	-	-
2a.4.10	NEI Fees	-	-	-	-	-	-	524	52	576	-	576	-	-	-	-	-	-	-	-	-
2a.4.11	Security Staff Cost	-	-	-	-	-	-	1,956	293	2,249	-	2,249	-	-	-	-	-	-	-	-	98,029

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 2a Period-Dependent Costs (continued)																					
2a.4.12	Utility Staff Cost	-	-	-	-	-	-	17,624	2,644	20,268	-	20,268	-	-	-	-	-	-	-	-	331,629
2a.4	Subtotal Period 2a Period-Dependent Costs	-	239	20	21	-	168	32,479	4,653	37,581	1,585	35,996	-	-	1,617	-	-	-	32,412	397	429,657
2a.0	TOTAL PERIOD 2a COST	-	239	20	21	-	168	59,163	8,706	68,318	3,898	64,420	-	-	1,617	-	-	-	32,412	397	429,657
PERIOD 2b - SAFSTOR Dormancy with Dry Spent Fuel Storage																					
Period 2b Direct Decommissioning Activities																					
2b.1.1	Quarterly Inspection									a											
2b.1.2	Semi-annual environmental survey									a											
2b.1.3	Prepare reports									a											
2b.1.4	Bituminous roof replacement	-	-	-	-	-	-	2	0	2	2	-	-	-	-	-	-	-	-	-	-
2b.1.5	Maintenance supplies	-	-	-	-	-	-	383	91	454	454	-	-	-	-	-	-	-	-	-	-
2b.1	Subtotal Period 2b Activity Costs	-	-	-	-	-	-	385	91	456	456	-	-	-	-	-	-	-	-	-	-
Period 2b Collateral Costs																					
2b.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	11,383	1,707	13,091	-	13,091	-	-	-	-	-	-	-	-	-
2b.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	2	0	3	3	-	-	-	-	-	-	-	-	-	-
2b.3.3	Fixed Overhead	-	-	-	-	-	-	1,053	158	1,211	1,211	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	-	-	-	-	-	-	12,439	1,866	14,305	1,214	13,091	-	-	-	-	-	-	-	-	-
Period 2b Period-Dependent Costs																					
2b.4.1	Insurance	-	-	-	-	-	-	907	91	998	-	998	-	-	-	-	-	-	-	-	-
2b.4.2	Property taxes	-	-	-	-	-	-	1,443	144	1,587	-	1,587	-	-	-	-	-	-	-	-	-
2b.4.3	Health physics supplies	-	173	-	-	-	-	-	43	216	216	-	-	-	-	-	-	-	-	-	-
2b.4.4	Disposal of DAW generated	-	-	15	15	-	121	-	34	185	185	-	-	-	1,168	-	-	-	23,399	287	-
2b.4.5	Plant energy budget	-	-	-	-	-	-	218	33	250	-	250	-	-	-	-	-	-	-	-	-
2b.4.6	NRC Fees	-	-	-	-	-	-	676	68	743	743	-	-	-	-	-	-	-	-	-	-
2b.4.7	Emergency Planning Fees	-	-	-	-	-	-	146	15	160	-	160	-	-	-	-	-	-	-	-	-
2b.4.8	ISFSI Operating Costs	-	-	-	-	-	-	106	16	121	-	121	-	-	-	-	-	-	-	-	-
2b.4.9	NEI Fees	-	-	-	-	-	-	378	38	416	-	416	-	-	-	-	-	-	-	-	-
2b.4.10	Security Staff Cost	-	-	-	-	-	-	150	23	173	-	173	-	-	-	-	-	-	-	-	7,529
2b.4.11	Utility Staff Cost	-	-	-	-	-	-	6,154	923	7,077	-	7,077	-	-	-	-	-	-	-	-	108,411
2b.4	Subtotal Period 2b Period-Dependent Costs	-	173	15	15	-	121	10,177	1,426	11,927	1,144	10,782	-	-	1,168	-	-	-	23,399	287	115,940
2b.0	TOTAL PERIOD 2b COST	-	173	15	15	-	121	22,980	3,383	26,687	2,814	23,873	-	-	1,168	-	-	-	23,399	287	115,940
PERIOD 2 TOTALS		-	412	35	36	-	289	82,143	12,089	95,005	6,712	88,293	-	-	2,785	-	-	-	55,811	684	545,597
PERIOD 3a - Reactivate Site Following SAFSTOR Dormancy																					
Period 3a Direct Decommissioning Activities																					
3a.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
3a.1.2	Review plant dwgs & specs.	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3a.1.3	Perform detailed rad survey									a											
3a.1.4	End product description	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3a.1.5	Detailed by-product inventory	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
3a.1.6	Define major work sequence	-	-	-	-	-	-	717	108	824	824	-	-	-	-	-	-	-	-	-	7,500
3a.1.7	Perform SER and EA	-	-	-	-	-	-	296	44	341	341	-	-	-	-	-	-	-	-	-	3,100
3a.1.8	Perform Site-Specific Cost Study	-	-	-	-	-	-	478	72	549	549	-	-	-	-	-	-	-	-	-	5,000
3a.1.9	Prepare/submit License Termination Plan	-	-	-	-	-	-	391	59	450	450	-	-	-	-	-	-	-	-	-	4,096
3a.1.10	Receive NRC approval of termination plan									a											
Activity Specifications																					
3a.1.11.1	Re-activate plant & temporary facilities	-	-	-	-	-	-	704	106	810	729	-	81	-	-	-	-	-	-	-	7,370
3a.1.11.2	Plant systems	-	-	-	-	-	-	398	60	458	412	-	46	-	-	-	-	-	-	-	4,167
3a.1.11.3	Reactor internals	-	-	-	-	-	-	678	102	780	780	-	-	-	-	-	-	-	-	-	7,100

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Activity Specifications (continued)																					
3a.1.11.4	Reactor vessel	-	-	-	-	-	-	621	93	714	714	-	-	-	-	-	-	-	-	-	6,500
3a.1.11.5	Biological shield	-	-	-	-	-	-	48	7	55	55	-	-	-	-	-	-	-	-	-	500
3a.1.11.6	Steam generators	-	-	-	-	-	-	298	45	343	343	-	-	-	-	-	-	-	-	-	3,120
3a.1.11.7	Reinforced concrete	-	-	-	-	-	-	153	23	176	88	-	88	-	-	-	-	-	-	-	1,600
3a.1.11.8	Main Turbine	-	-	-	-	-	-	38	6	44	-	-	44	-	-	-	-	-	-	-	400
3a.1.11.9	Main Condensers	-	-	-	-	-	-	38	6	44	-	-	44	-	-	-	-	-	-	-	400
3a.1.11.10	Plant structures & buildings	-	-	-	-	-	-	298	45	343	171	-	171	-	-	-	-	-	-	-	3,120
3a.1.11.11	Waste management	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3a.1.11.12	Facility & site closeout	-	-	-	-	-	-	86	13	99	49	-	49	-	-	-	-	-	-	-	900
3a.1.11	Total	-	-	-	-	-	-	3,801	570	4,371	3,848	-	523	-	-	-	-	-	-	-	39,777
Planning & Site Preparations																					
3a.1.12	Prepare dismantling sequence	-	-	-	-	-	-	229	34	264	264	-	-	-	-	-	-	-	-	-	2,400
3a.1.13	Plant prep. & temp. svces	-	-	-	-	-	-	2,419	363	2,782	2,782	-	-	-	-	-	-	-	-	-	-
3a.1.14	Design water clean-up system	-	-	-	-	-	-	134	20	154	154	-	-	-	-	-	-	-	-	-	1,400
3a.1.15	Rigging/Cont. Cntrl Envlps/tooling/etc.	-	-	-	-	-	-	2,048	307	2,355	2,355	-	-	-	-	-	-	-	-	-	-
3a.1.16	Procure casks/liners & containers	-	-	-	-	-	-	118	18	135	135	-	-	-	-	-	-	-	-	-	1,230
3a.1	Subtotal Period 3a Activity Costs	-	-	-	-	-	-	11,414	1,712	13,126	12,603	-	523	-	-	-	-	-	-	-	72,703
Period 3a Additional Costs																					
3a.2.1	Mixed/Hazardous Waste	-	-	376	148	4,204	-	-	690	5,418	5,418	-	-	27,017	-	-	-	-	1,397,259	5,601	-
3a.2	Subtotal Period 3a Additional Costs	-	-	376	148	4,204	-	-	690	5,418	5,418	-	-	27,017	-	-	-	-	1,397,259	5,601	-
Period 3a Collateral Costs																					
3a.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
3a.3.2	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
3a.3	Subtotal Period 3a Collateral Costs	-	-	-	-	-	-	366	55	420	420	-	-	-	-	-	-	-	-	-	-
Period 3a Period-Dependent Costs																					
3a.4.1	Insurance	-	-	-	-	-	-	314	31	346	346	-	-	-	-	-	-	-	-	-	-
3a.4.2	Property taxes	-	-	-	-	-	-	500	50	550	550	-	-	-	-	-	-	-	-	-	-
3a.4.3	Health physics supplies	-	258	-	-	-	-	-	64	322	322	-	-	-	-	-	-	-	-	-	-
3a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
3a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
3a.4.6	Plant energy budget	-	-	-	-	-	-	585	85	650	650	-	-	-	-	-	-	-	-	-	-
3a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
3a.4.8	Emergency Planning Fees	-	-	-	-	-	-	50	5	56	-	56	-	-	-	-	-	-	-	-	-
3a.4.9	ISFSI Operating Costs	-	-	-	-	-	-	37	5	42	-	42	-	-	-	-	-	-	-	-	-
3a.4.10	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-
3a.4.11	Security Staff Cost	-	-	-	-	-	-	323	48	371	371	-	-	-	-	-	-	-	-	-	16,164
3a.4.12	Utility Staff Cost	-	-	-	-	-	-	13,224	1,984	15,207	15,207	-	-	-	-	-	-	-	-	-	239,336
3a.4	Subtotal Period 3a Period-Dependent Costs	-	585	5	5	-	42	15,408	2,374	18,419	18,322	98	-	-	404	-	-	-	8,103	99	255,500
3a.0	TOTAL PERIOD 3a COST	-	585	381	154	4,204	42	27,188	4,831	37,385	36,763	98	523	27,017	404	-	-	-	1,405,362	5,700	328,203
PERIOD 3b - Decommissioning Preparations																					
Period 3b Direct Decommissioning Activities																					
Detailed Work Procedures																					
3b.1.1.1	Plant systems	-	-	-	-	-	-	452	68	520	468	-	52	-	-	-	-	-	-	-	4,733
3b.1.1.2	Reactor internals	-	-	-	-	-	-	239	36	275	275	-	-	-	-	-	-	-	-	-	2,500
3b.1.1.3	Remaining buildings	-	-	-	-	-	-	129	19	148	37	-	111	-	-	-	-	-	-	-	1,350
3b.1.1.4	CRD cooling assembly	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.5	CRD housings & ICI tubes	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.6	Incore instrumentation	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.7	Reactor vessel	-	-	-	-	-	-	347	52	399	399	-	-	-	-	-	-	-	-	-	3,830
3b.1.1.8	Facility closeout	-	-	-	-	-	-	115	17	132	66	-	66	-	-	-	-	-	-	-	1,200

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Detailed Work Procedures (continued)																					
3b.1.1.9	Missile shields	-	-	-	-	-	-	43	8	49	49	-	-	-	-	-	-	-	-	-	450
3b.1.1.10	Biological shield	-	-	-	-	-	-	115	17	132	132	-	-	-	-	-	-	-	-	-	1,200
3b.1.1.11	Steam generators	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3b.1.1.12	Reinforced concrete	-	-	-	-	-	-	96	14	110	55	-	55	-	-	-	-	-	-	-	1,000
3b.1.1.13	Main Turbine	-	-	-	-	-	-	149	22	171	-	-	171	-	-	-	-	-	-	-	1,560
3b.1.1.14	Main Condensers	-	-	-	-	-	-	149	22	171	-	-	171	-	-	-	-	-	-	-	1,560
3b.1.1.15	Auxiliary building	-	-	-	-	-	-	261	39	300	270	-	30	-	-	-	-	-	-	-	2,730
3b.1.1.16	Reactor building	-	-	-	-	-	-	261	39	300	270	-	30	-	-	-	-	-	-	-	2,730
3b.1.1	Total	-	-	-	-	-	-	3,081	462	3,543	2,856	-	687	-	-	-	-	-	-	-	32,243
3b.1	Subtotal Period 3b Activity Costs	-	-	-	-	-	-	3,081	462	3,543	2,856	-	687	-	-	-	-	-	-	-	32,243
Period 3b Additional Costs																					
3b.2.1	Asbestos Removal Program	-	611	1	159	-	190	-	224	1,185	1,185	-	-	-	14,105	-	-	-	116,795	11,756	-
3b.2.2	Site Characterization Survey	-	-	-	-	-	-	1,269	381	1,650	1,650	-	-	-	-	-	-	-	-	-	-
3b.2	Subtotal Period 3b Additional Costs	-	611	1	159	-	190	1,269	605	2,835	2,835	-	-	-	14,105	-	-	-	116,795	11,756	-
Period 3b Collateral Costs																					
3b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
3b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
3b.3.3	Small tool allowance	-	8	-	-	-	-	-	1	10	10	-	-	-	-	-	-	-	-	-	-
3b.3.4	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
3b.3.5	Florida LLRW Inspection Fee	-	-	-	-	-	-	28	3	31	31	-	-	-	-	-	-	-	-	-	-
3b.3.6	Fixed Overhead	-	-	-	-	-	-	185	28	213	213	-	-	-	-	-	-	-	-	-	-
3b.3	Subtotal Period 3b Collateral Costs	702	965	-	-	-	-	1,096	413	3,176	3,176	-	-	-	-	-	-	-	-	-	-
Period 3b Period-Dependent Costs																					
3b.4.1	Decon supplies	21	-	-	-	-	-	-	5	26	26	-	-	-	-	-	-	-	-	-	-
3b.4.2	Insurance	-	-	-	-	-	-	159	16	175	175	-	-	-	-	-	-	-	-	-	-
3b.4.3	Property taxes	-	-	-	-	-	-	253	25	279	279	-	-	-	-	-	-	-	-	-	-
3b.4.4	Health physics supplies	-	160	-	-	-	-	-	40	200	200	-	-	-	-	-	-	-	-	-	-
3b.4.5	Heavy equipment rental	-	166	-	-	-	-	-	25	191	191	-	-	-	-	-	-	-	-	-	-
3b.4.6	Disposal of DAW generated	-	-	3	3	-	21	-	6	32	32	-	-	-	205	-	-	-	4,107	50	-
3b.4.7	Plant energy budget	-	-	-	-	-	-	286	43	329	329	-	-	-	-	-	-	-	-	-	-
3b.4.8	NRC Fees	-	-	-	-	-	-	134	13	148	148	-	-	-	-	-	-	-	-	-	-
3b.4.9	Emergency Planning Fees	-	-	-	-	-	-	26	3	28	-	28	-	-	-	-	-	-	-	-	-
3b.4.10	ISFSI Operating Costs	-	-	-	-	-	-	19	3	21	-	21	-	-	-	-	-	-	-	-	-
3b.4.11	NEI Fees	-	-	-	-	-	-	66	7	73	73	-	-	-	-	-	-	-	-	-	-
3b.4.12	Security Staff Cost	-	-	-	-	-	-	163	25	188	188	-	-	-	-	-	-	-	-	-	8,193
3b.4.13	DOC Staff Cost	-	-	-	-	-	-	2,944	442	3,385	3,385	-	-	-	-	-	-	-	-	-	47,571
3b.4.14	Utility Staff Cost	-	-	-	-	-	-	7,005	1,051	8,055	8,055	-	-	-	-	-	-	-	-	-	126,593
3b.4	Subtotal Period 3b Period-Dependent Costs	21	326	3	3	-	21	11,056	1,703	13,132	13,082	49	-	-	205	-	-	-	4,107	50	182,357
3b.0	TOTAL PERIOD 3b COST	723	1,902	3	161	-	212	16,502	3,183	22,686	21,950	49	687	-	14,310	-	-	-	120,902	11,806	214,600
PERIOD 3 TOTALS		723	2,487	384	315	4,204	254	43,690	8,014	60,071	58,713	147	1,211	27,017	14,714	-	-	-	1,526,264	17,507	542,803
PERIOD 4a - Large Component Removal																					
Period 4a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
4a.1.1.1	Reactor Coolant Piping	10	36	5	12	-	177	-	60	299	299	-	-	-	466	-	-	-	56,418	1,275	-
4a.1.1.2	Pressurizer Relief Tank	1	4	1	2	-	27	-	9	44	44	-	-	-	78	-	-	-	8,699	148	-
4a.1.1.3	Reactor Coolant Pumps & Motors	23	80	36	370	112	1,808	-	554	2,982	2,982	-	-	458	5,898	-	-	-	620,400	2,655	-
4a.1.1.4	Pressurizer	6	41	429	482	-	570	-	271	1,797	1,797	-	-	-	2,134	-	-	-	197,650	1,801	-
4a.1.1.5	Steam Generators	33	2,061	1,610	2,400	2,161	2,822	-	2,082	13,168	13,168	-	-	14,265	10,588	-	-	-	2,458,344	5,090	-
4a.1.1.6	CRDMs/ICIs/Service Structure Removal	25	74	117	63	-	260	-	117	656	656	-	-	-	3,758	-	-	-	82,672	2,555	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Nuclear Steam Supply System Removal (continued)																					
4a.1.1.7	Reactor Vessel Internals	42	1,716	4,133	652	-	3,608	165	4,333	14,651	14,651	-	-	-	1,710	626	402	-	266,059	22,904	1,048
4a.1.1.8	Reactor Vessel	66	3,419	1,079	1,042	-	5,631	165	5,968	17,370	17,370	-	-	-	6,731	2,254	-	-	990,810	22,904	1,048
4a.1.1	Totals	205	7,410	7,409	5,022	2,273	14,903	331	13,394	50,946	50,946	-	-	14,723	31,342	2,880	402	-	4,681,051	59,332	2,096
Removal of Major Equipment																					
4a.1.2	Main Turbine/Generator	-	207	142	23	561	478	-	273	1,685	1,685	-	-	2,641	2,934	-	-	-	517,834	5,607	-
4a.1.3	Main Condensers	-	753	75	96	574	415	-	400	2,313	2,313	-	-	5,098	2,549	-	-	-	484,292	20,821	-
Cascading Costs from Clean Building Demolition																					
4a.1.4.1	Reactor	-	1,056	-	-	-	-	-	158	1,214	1,214	-	-	-	-	-	-	-	-	20,764	-
4a.1.4.2	Fuel Handling	-	91	-	-	-	-	-	14	104	104	-	-	-	-	-	-	-	-	1,680	-
4a.1.4.3	Reactor Auxiliary	-	160	-	-	-	-	-	24	184	184	-	-	-	-	-	-	-	-	2,864	-
4a.1.4	Totals	-	1,306	-	-	-	-	-	196	1,502	1,502	-	-	-	-	-	-	-	-	25,308	-
Disposal of Plant Systems																					
4a.1.5.1	Air Evacuation	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	171	-
4a.1.5.2	Air Evacuation - Insulated	-	22	-	-	-	-	-	3	26	-	-	26	-	-	-	-	-	-	701	-
4a.1.5.3	Auxiliary Steam - Insulated	-	18	-	-	-	-	-	3	21	-	-	21	-	-	-	-	-	-	577	-
4a.1.5.4	Chemical & Volume Control	-	76	7	13	64	118	-	61	338	338	-	-	629	528	-	-	-	63,039	2,032	-
4a.1.5.5	Chemical & Volume Control - Insulated	-	295	19	34	7	374	-	175	904	904	-	-	67	1,331	-	-	-	121,946	7,483	-
4a.1.5.6	Chemical Feed	-	2	-	-	-	-	-	0	2	-	-	2	-	-	-	-	-	-	66	-
4a.1.5.7	Chemical Feed - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	28	-
4a.1.5.8	Circulating & Intake Cooling Water	-	189	-	-	-	-	-	28	218	-	-	218	-	-	-	-	-	-	5,958	-
4a.1.5.9	Component Cooling	-	59	-	-	-	-	-	9	67	-	-	67	-	-	-	-	-	-	1,825	-
4a.1.5.10	Component Cooling - RCA	-	207	20	58	576	381	-	244	1,487	1,487	-	-	5,677	1,354	-	-	-	351,904	5,514	-
4a.1.5.11	Condensate	-	123	-	-	-	-	-	18	142	-	-	142	-	-	-	-	-	-	3,749	-
4a.1.5.12	Condensate - Insulated	-	69	-	-	-	-	-	10	79	-	-	79	-	-	-	-	-	-	2,214	-
4a.1.5.13	Condensate Polish Filter Demin	-	19	-	-	-	-	-	3	22	-	-	22	-	-	-	-	-	-	589	-
4a.1.5.14	Condensate Polish Filter Demin - Ins	-	55	-	-	-	-	-	8	64	-	-	64	-	-	-	-	-	-	1,778	-
4a.1.5.15	Condensate Recovery	-	3	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	86	-
4a.1.5.16	Condensate Recovery - Insulated	-	0	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-	12	-
4a.1.5.17	Condensate Recovery - Insulated - RCA	-	0	-	-	0	0	-	0	1	1	-	-	1	2	-	-	-	202	11	-
4a.1.5.18	Condensate Recovery - RCA	-	8	0	1	13	5	-	5	33	33	-	-	131	19	-	-	-	6,945	208	-
4a.1.5.19	Condenser Tube Cleaning	-	27	-	-	-	-	-	4	31	-	-	31	-	-	-	-	-	-	838	-
4a.1.5.20	Demineralized Makeup Water	-	12	-	-	-	-	-	2	14	-	-	14	-	-	-	-	-	-	370	-
4a.1.5.21	Demineralized Makeup Water - RCA	-	9	1	1	3	10	-	5	29	29	-	-	32	37	-	-	-	4,608	207	-
4a.1.5.22	Domestic/Makeup/Service Water	-	140	-	-	-	-	-	21	161	-	-	161	-	-	-	-	-	-	4,067	-
4a.1.5.23	Domestic/Makeup/Service Water - RCA	-	66	4	9	59	78	-	47	263	263	-	-	583	276	-	-	-	48,468	1,679	-
4a.1.5.24	Domestic/Makeup/Service Water-Ins	-	3	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	93	-
4a.1.5.25	Domestic/Makeup/Service Water-Ins-RCA	-	8	0	1	6	9	-	5	30	30	-	-	63	31	-	-	-	5,358	202	-
4a.1.5.26	Electrical - Clean	-	1,557	-	-	-	-	-	233	1,790	-	-	1,790	-	-	-	-	-	-	46,406	-
4a.1.5.27	Extraction Steam	-	64	-	-	-	-	-	10	74	-	-	74	-	-	-	-	-	-	1,884	-
4a.1.5.28	Extraction Steam - Insulated	-	64	-	-	-	-	-	10	73	-	-	73	-	-	-	-	-	-	2,032	-
4a.1.5.29	Feedwater - Insulated	-	68	-	-	-	-	-	10	78	-	-	78	-	-	-	-	-	-	2,153	-
4a.1.5.30	Feedwater - Insulated - RCA	-	21	2	4	46	28	-	20	122	122	-	-	455	101	-	-	-	27,554	558	-
4a.1.5.31	Fire Protection	-	55	-	-	-	-	-	8	63	-	-	63	-	-	-	-	-	-	1,710	-
4a.1.5.32	Fire Protection - Insulated	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	163	-
4a.1.5.33	HVAC	-	56	-	-	-	-	-	8	64	-	-	64	-	-	-	-	-	-	1,846	-
4a.1.5.34	Heater Drain & Vent - Insulated	-	143	-	-	-	-	-	21	164	-	-	164	-	-	-	-	-	-	4,490	-
4a.1.5.35	Hydrogen Sampling	-	31	2	4	37	27	-	21	122	122	-	-	367	97	-	-	-	23,587	841	-
4a.1.5.36	Integrated Leak Rate Testing	-	20	1	2	18	18	-	13	73	73	-	-	179	65	-	-	-	13,135	528	-
4a.1.5.37	Main Steam - Insulated	-	148	-	-	-	-	-	22	171	-	-	171	-	-	-	-	-	-	4,624	-
4a.1.5.38	Main Steam - Insulated - RCA	-	30	2	7	70	43	-	30	182	182	-	-	688	151	-	-	-	41,492	802	-
4a.1.5.39	Misc Bulk Gas	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	440	-
4a.1.5.40	Misc Bulk Gas - RCA	-	10	1	1	2	11	-	8	30	30	-	-	23	38	-	-	-	4,296	229	-
4a.1.5.41	Miscellaneous	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	230	-
4a.1.5.42	Miscellaneous - RCA	-	7	1	3	37	18	-	12	78	78	-	-	365	63	-	-	-	20,522	188	-
4a.1.5.43	Neutralization Basin Recirculation	-	14	-	-	-	-	-	2	16	-	-	16	-	-	-	-	-	-	435	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
4a.1.5.44	Post Accident Sampling	-	11	0	1	12	7	-	7	39	39	-	-	117	25	-	-	-	7,040	321	-
4a.1.5.45	Post Accident Sampling - Insulated	-	31	1	1	2	15	-	12	63	63	-	-	22	54	-	-	-	5,685	882	-
4a.1.5.46	RCP Oil Collection	-	1	-	0	1	1	-	1	4	4	-	-	10	5	-	-	-	849	27	-
4a.1.5.47	SGBTF Blowdown - Insulated	-	19	-	-	-	-	-	3	22	-	-	22	-	-	-	-	-	-	642	-
4a.1.5.48	SGBTF HVAC	-	45	-	-	-	-	-	7	52	-	-	52	-	-	-	-	-	-	1,529	-
4a.1.5.49	SGBTF Misc - RCA	-	2	0	1	8	4	-	3	17	17	-	-	77	13	-	-	-	4,306	49	-
4a.1.5.50	SGBTF Waste Management	-	3	0	0	1	3	-	2	10	10	-	-	8	12	-	-	-	1,356	79	-
4a.1.5.51	SGBTF Waste Management - Insulated	-	30	2	3	7	31	-	17	90	90	-	-	72	109	-	-	-	12,714	749	-
4a.1.5.52	Safety Injection	-	143	27	64	367	539	-	238	1,378	1,378	-	-	3,611	1,999	-	-	-	318,432	3,939	-
4a.1.5.53	Safety Injection - Insulated	-	353	24	51	173	484	-	245	1,331	1,331	-	-	1,705	1,721	-	-	-	223,521	9,167	-
4a.1.5.54	Sampling	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	198	-
4a.1.5.55	Sampling - Insulated	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	188	-
4a.1.5.56	Sampling - Insulated - RCA	-	13	1	1	2	12	-	7	37	37	-	-	24	43	-	-	-	4,809	336	-
4a.1.5.57	Sampling - RCA	-	13	1	1	8	10	-	7	40	40	-	-	77	35	-	-	-	6,271	350	-
4a.1.5.58	Secondary Side Wet Layup	-	9	-	-	-	-	-	1	10	-	-	10	-	-	-	-	-	-	288	-
4a.1.5.59	Secondary Side Wet Layup - Ins	-	10	-	-	-	-	-	2	12	-	-	12	-	-	-	-	-	-	348	-
4a.1.5.60	Service & Instrument Air	-	20	-	-	-	-	-	3	23	-	-	23	-	-	-	-	-	-	617	-
4a.1.5.61	Service & Instrument Air - Ins	-	10	-	-	-	-	-	2	12	-	-	12	-	-	-	-	-	-	349	-
4a.1.5.62	Service & Instrument Air - Ins - RCA	-	47	3	5	12	45	-	26	136	136	-	-	122	159	-	-	-	19,173	1,177	-
4a.1.5.63	Service & Instrument Air - RCA	-	32	2	3	11	31	-	18	97	97	-	-	112	109	-	-	-	14,270	811	-
4a.1.5.64	Steam Gen Blowdown Cooling	-	13	-	-	-	-	-	2	14	-	-	14	-	-	-	-	-	-	372	-
4a.1.5.65	Steam Gen Blowdown Cooling - Ins - RCA	-	31	2	6	62	43	-	29	173	173	-	-	808	152	-	-	-	38,356	811	-
4a.1.5.66	Steam Gen Blowdown Cooling - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	35	-
4a.1.5.67	Steam Gen Blowdown Cooling - RCA	-	41	3	9	84	60	-	39	235	235	-	-	825	211	-	-	-	52,463	1,061	-
4a.1.5.68	Steam Generator Blowdown	-	24	1	3	22	19	-	14	83	83	-	-	212	67	-	-	-	14,566	671	-
4a.1.5.69	Steam Generator Blowdown - Insulated	-	44	2	4	16	37	-	23	126	126	-	-	157	131	-	-	-	18,162	1,158	-
4a.1.5.70	Turbine	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	29	-
4a.1.5.71	Turbine Cooling Water	-	43	-	-	-	-	-	6	50	-	-	50	-	-	-	-	-	-	1,308	-
4a.1.5.72	Turbine Cooling Water - Insulated	-	26	-	-	-	-	-	4	30	-	-	30	-	-	-	-	-	-	854	-
4a.1.5.73	Turbine Lube Oil & Diesel Oil	-	51	-	-	-	-	-	8	59	-	-	59	-	-	-	-	-	-	1,596	-
4a.1.5.74	Water Treatment	-	53	-	-	-	-	-	8	61	-	-	61	-	-	-	-	-	-	1,622	-
4a.1.5.75	Water Treatment - Insulated	-	30	-	-	-	-	-	5	35	-	-	35	-	-	-	-	-	-	957	-
4a.1.5	Totals	-	4,890	129	293	1,728	2,461	-	1,826	11,327	7,552	-	3,775	17,022	8,940	-	-	-	1,475,030	142,517	-
4a.1.6	Scaffolding in support of decommissioning	-	501	6	4	70	5	-	138	724	724	-	-	618	31	-	-	-	30,903	16,002	-
4a.1	Subtotal Period 4a Activity Costs	205	15,068	7,761	5,438	5,205	18,262	331	16,227	68,498	64,723	-	3,775	40,100	45,796	2,880	402	-	7,189,111	269,587	2,096
Period 4a Additional Costs																					
4a.2.1	Curie Surcharge (excluding RPV)	-	-	-	-	-	323	-	81	403	403	-	-	-	-	-	-	-	-	-	-
4a.2	Subtotal Period 4a Additional Costs	-	-	-	-	-	323	-	81	403	403	-	-	-	-	-	-	-	-	-	-
Period 4a Collateral Costs																					
4a.3.1	Process liquid waste	34	-	13	83	-	240	-	91	461	461	-	-	-	-	265	-	-	33,353	52	-
4a.3.2	Small tool allowance	-	172	-	-	-	-	-	26	198	178	-	20	-	-	-	-	-	-	-	-
4a.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	180	18	199	199	-	-	-	-	-	-	-	-	-	-
4a.3.4	Fixed Overhead	-	-	-	-	-	-	369	55	424	424	-	-	-	-	-	-	-	-	-	-
4a.3	Subtotal Period 4a Collateral Costs	34	172	13	83	-	240	549	190	1,281	1,261	-	20	-	-	265	-	-	33,353	52	-
Period 4a Period-Dependent Costs																					
4a.4.1	Decon supplies	42	-	-	-	-	-	-	11	53	53	-	-	-	-	-	-	-	-	-	-
4a.4.2	Insurance	-	-	-	-	-	-	318	32	349	349	-	-	-	-	-	-	-	-	-	-
4a.4.3	Property taxes	-	-	-	-	-	-	505	51	556	500	-	56	-	-	-	-	-	-	-	-
4a.4.4	Health physics supplies	-	1,126	-	-	-	-	-	281	1,407	1,407	-	-	-	-	-	-	-	-	-	-
4a.4.5	Heavy equipment rental	-	1,703	-	-	-	-	-	255	1,959	1,959	-	-	-	-	-	-	-	-	-	-
4a.4.6	Disposal of DAW generated	-	-	39	40	-	322	-	91	492	492	-	-	-	3,106	-	-	-	62,241	783	-
4a.4.7	Plant energy budget	-	-	-	-	-	-	724	109	832	832	-	-	-	-	-	-	-	-	-	-
4a.4.8	NRC Fees	-	-	-	-	-	-	331	33	364	364	-	-	-	-	-	-	-	-	-	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 4a Period-Dependent Costs (continued)																					
4a.4.9	Emergency Planning Fees	-	-	-	-	-	-	51	5	56	-	56	-	-	-	-	-	-	-	-	-
4a.4.10	Radwaste Processing Equipment/Services	-	-	-	-	-	-	182	27	209	209	-	-	-	-	-	-	-	-	-	-
4a.4.11	ISFSI Operating Costs	-	-	-	-	-	-	37	6	42	-	42	-	-	-	-	-	-	-	-	-
4a.4.12	NEI Fees	-	-	-	-	-	-	132	13	146	146	-	-	-	-	-	-	-	-	-	-
4a.4.13	Security Staff Cost	-	-	-	-	-	-	1,262	189	1,452	1,452	-	-	-	-	-	-	-	-	-	63,257
4a.4.14	DOC Staff Cost	-	-	-	-	-	-	10,297	1,545	11,842	11,842	-	-	-	-	-	-	-	-	-	160,251
4a.4.15	Utility Staff Cost	-	-	-	-	-	-	15,713	2,357	18,070	18,070	-	-	-	-	-	-	-	-	-	281,494
4a.4	Subtotal Period 4a Period-Dependent Costs	42	2,829	39	40	-	322	29,552	5,004	37,829	37,675	99	56	-	3,106	-	-	-	62,241	763	505,003
4a.0	TOTAL PERIOD 4a COST	281	18,069	7,813	5,562	5,205	19,147	30,432	21,501	108,011	104,062	99	3,850	40,100	48,902	3,144	402	-	7,284,705	270,402	507,099
PERIOD 4b - Site Decontamination																					
Period 4b Direct Decommissioning Activities																					
4b.1.1	Remove spent fuel racks	355	39	86	72	-	417	-	311	1,281	1,281	-	-	-	2,559	-	-	-	255,900	1,243	-
Disposal of Plant Systems																					
4b.1.2.1	Containmnt Spray & Refueling Water	-	323	57	124	457	1,163	-	464	2,587	2,587	-	-	4,499	4,639	-	-	-	552,992	8,962	-
4b.1.2.2	Containmnt Spray & Refueling Water - Ins	-	126	14	36	78	367	-	142	763	763	-	-	764	1,304	-	-	-	147,956	3,482	-
4b.1.2.3	Electrical - Contaminated	-	181	5	15	105	115	-	92	512	512	-	-	1,031	407	-	-	-	78,367	4,890	-
4b.1.2.4	Electrical - Decontaminated	-	1,164	45	131	933	1,027	-	712	4,013	4,013	-	-	9,189	3,846	-	-	-	700,348	30,732	-
4b.1.2.5	Emergency Diesel Generator	-	52	-	-	-	-	-	8	60	-	-	60	-	-	-	-	-	-	1,662	-
4b.1.2.6	Emergency Diesel Generator - Insulated	-	4	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	150	-
4b.1.2.7	Fire Protection - Insulated - RCA	-	1	-	0	2	1	-	1	6	6	-	-	17	4	-	-	-	1,112	37	-
4b.1.2.8	Fire Protection - RCA	-	17	1	2	23	15	-	12	71	71	-	-	228	55	-	-	-	14,178	449	-
4b.1.2.9	Fuel Pool	-	61	5	13	25	135	-	55	294	294	-	-	242	486	-	-	-	52,830	1,618	-
4b.1.2.10	Fuel Pool - Insulated	-	32	2	4	3	45	-	20	106	106	-	-	25	161	-	-	-	15,401	624	-
4b.1.2.11	HVAC - Contaminated	-	1,255	31	118	2,238	281	-	740	4,663	4,663	-	-	22,042	998	-	-	-	984,490	30,131	-
4b.1.2.12	Primary Water	-	117	12	25	120	223	-	108	605	605	-	-	1,185	990	-	-	-	119,184	3,188	-
4b.1.2.13	Primary Water - Insulated	-	2	-	0	0	2	-	1	5	5	-	-	1	7	-	-	-	708	50	-
4b.1.2.14	Radiation Monitoring	-	15	0	1	1	8	-	6	32	32	-	-	13	29	-	-	-	3,076	424	-
4b.1.2.15	Reactor Coolant - Insulated	-	55	3	5	10	56	-	30	159	159	-	-	100	197	-	-	-	21,745	1,521	-
4b.1.2.16	Refueling Equipment	-	87	4	12	70	98	-	59	329	329	-	-	689	348	-	-	-	59,222	2,434	-
4b.1.2.17	Secondary Side Wet Layup - Ins - RCA	-	9	1	1	3	10	-	5	28	28	-	-	29	36	-	-	-	4,347	207	-
4b.1.2.18	Secondary Side Wet Layup - RCA	-	9	1	1	13	8	-	6	38	38	-	-	130	28	-	-	-	7,735	223	-
4b.1.2.19	Waste Management	-	456	42	83	371	747	-	373	2,069	2,069	-	-	3,653	3,270	-	-	-	386,133	12,133	-
4b.1.2.20	Waste Management - Insulated	-	566	38	67	13	738	-	342	1,764	1,764	-	-	127	2,624	-	-	-	240,225	14,278	-
4b.1.2	Totals	-	4,531	260	638	4,464	5,038	-	3,178	18,109	18,044	-	65	43,985	19,227	-	-	-	3,390,046	117,392	-
4b.1.3	Scaffolding in support of decommissioning	-	752	10	6	104	8	-	207	1,086	1,086	-	-	927	46	-	-	-	46,355	24,004	-
Decontamination of Site Buildings																					
4b.1.4.1	Reactor	790	717	93	281	320	2,001	-	1,174	5,377	5,377	-	-	3,150	9,421	-	-	-	1,026,526	38,692	-
4b.1.4.2	Fuel Handling	304	316	5	17	169	59	-	274	1,145	1,145	-	-	1,664	368	-	-	-	103,640	16,053	-
4b.1.4.3	Primary Water Tank Foundation - Contam	0	3	3	8	-	42	-	13	69	69	-	-	-	260	-	-	-	26,046	80	-
4b.1.4.4	Reactor Auxiliary	367	197	25	81	101	404	-	363	1,538	1,538	-	-	995	2,496	-	-	-	288,209	14,568	-
4b.1.4.5	Refueling Water Storage Tank - Contam	0	5	5	17	-	89	-	27	144	144	-	-	-	548	-	-	-	54,810	132	-
4b.1.4	Totals	1,462	1,238	132	404	590	2,595	-	1,852	8,274	8,274	-	-	5,809	13,093	-	-	-	1,499,231	69,524	-
4b.1	Subtotal Period 4b Activity Costs	1,817	6,561	488	1,121	5,158	8,059	-	5,548	28,751	28,685	-	65	50,701	34,926	-	-	-	5,191,532	212,162	-
Period 4b Additional Costs																					
4b.2.1	Contaminated Soil Remediation	-	491	1	238	-	1,360	-	499	2,589	2,589	-	-	-	10,981	-	-	-	834,548	11,937	-
4b.2	Subtotal Period 4b Additional Costs	-	491	1	238	-	1,360	-	499	2,589	2,589	-	-	-	10,981	-	-	-	834,548	11,937	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Burial Volumes Class B Cu. Feet	Burial Volumes Class C Cu. Feet	Burial Volumes GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 4b Collateral Costs																					
4b.3.1	Process liquid waste	64	-	27	164	-	416	-	163	833	833	-	-	-	-	522	-	-	65,739	103	-
4b.3.2	Small tool allowance	-	140	-	-	-	-	-	21	161	161	-	-	-	-	-	-	-	-	-	-
4b.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	176	18	194	194	-	-	-	-	-	-	-	-	-	-
4b.3.4	Fixed Overhead	-	-	-	-	-	-	806	121	926	926	-	-	-	-	-	-	-	-	-	-
4b.3	Subtotal Period 4b Collateral Costs	64	140	27	164	-	416	982	322	2,114	2,114	-	-	-	-	522	-	-	65,739	103	-
Period 4b Period-Dependent Costs																					
4b.4.1	Decon supplies	708	-	-	-	-	-	-	177	885	885	-	-	-	-	-	-	-	-	-	-
4b.4.2	Insurance	-	-	-	-	-	-	694	69	763	763	-	-	-	-	-	-	-	-	-	-
4b.4.3	Property taxes	-	-	-	-	-	-	1,103	110	1,214	1,214	-	-	-	-	-	-	-	-	-	-
4b.4.4	Health physics supplies	-	1,263	-	-	-	-	-	316	1,579	1,579	-	-	-	-	-	-	-	-	-	-
4b.4.5	Heavy equipment rental	-	3,743	-	-	-	-	-	561	4,305	4,305	-	-	-	-	-	-	-	-	-	-
4b.4.6	Disposal of DAW generated	-	-	53	55	-	441	-	124	673	673	-	-	-	4,246	-	-	-	85,079	1,042	-
4b.4.7	Plant energy budget	-	-	-	-	-	-	1,248	187	1,435	1,435	-	-	-	-	-	-	-	-	-	-
4b.4.8	NRC Fees	-	-	-	-	-	-	723	72	796	796	-	-	-	-	-	-	-	-	-	-
4b.4.9	Emergency Planning Fees	-	-	-	-	-	-	111	11	123	-	123	-	-	-	-	-	-	-	-	-
4b.4.10	Radwaste Processing Equipment/Services	-	-	-	-	-	-	794	119	914	914	-	-	-	-	-	-	-	-	-	-
4b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	81	12	93	-	93	-	-	-	-	-	-	-	-	-
4b.4.12	NEI Fees	-	-	-	-	-	-	289	29	318	318	-	-	-	-	-	-	-	-	-	-
4b.4.13	Security Staff Cost	-	-	-	-	-	-	1,424	214	1,638	1,638	-	-	-	-	-	-	-	-	-	71,389
4b.4.14	DOC Staff Cost	-	-	-	-	-	-	15,048	2,257	17,305	17,305	-	-	-	-	-	-	-	-	-	248,709
4b.4.15	Utility Staff Cost	-	-	-	-	-	-	23,008	3,451	26,459	26,459	-	-	-	-	-	-	-	-	-	426,029
4b.4	Subtotal Period 4b Period-Dependent Costs	708	5,007	53	55	-	441	44,525	7,711	58,499	58,284	215	-	-	4,246	-	-	-	85,079	1,042	746,126
4b.0	TOTAL PERIOD 4b COST	2,589	12,199	569	1,578	5,158	10,275	45,506	14,080	91,953	91,672	215	65	50,701	50,152	522	-	-	6,176,899	225,244	746,126
PERIOD 4e - License Termination																					
Period 4e Direct Decommissioning Activities																					
4e.1.1	ORISE confirmatory survey	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
4e.1.2	Terminate license									a											
4e.1	Subtotal Period 4e Activity Costs	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
Period 4e Additional Costs																					
4e.2.1	License Termination Survey	-	-	-	-	-	-	4,860	1,458	6,317	6,317	-	-	-	-	-	-	-	-	118,801	-
4e.2	Subtotal Period 4e Additional Costs	-	-	-	-	-	-	4,860	1,458	6,317	6,317	-	-	-	-	-	-	-	-	118,801	-
Period 4e Collateral Costs																					
4e.3.1	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
4e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
4e.3.3	Fixed Overhead	-	-	-	-	-	-	275	41	316	316	-	-	-	-	-	-	-	-	-	-
4e.3	Subtotal Period 4e Collateral Costs	-	-	-	-	-	-	1,158	174	1,332	1,332	-	-	-	-	-	-	-	-	-	-
Period 4e Period-Dependent Costs																					
4e.4.1	Insurance	-	-	-	-	-	-	221	22	243	243	-	-	-	-	-	-	-	-	-	-
4e.4.2	Property taxes	-	-	-	-	-	-	376	38	414	414	-	-	-	-	-	-	-	-	-	-
4e.4.3	Health physics supplies	-	570	-	-	-	-	-	142	712	712	-	-	-	-	-	-	-	-	-	-
4e.4.4	Disposal of DAW generated	-	-	4	4	-	32	-	9	48	48	-	-	-	305	-	-	-	6,105	75	-
4e.4.5	Plant energy budget	-	-	-	-	-	-	114	17	131	131	-	-	-	-	-	-	-	-	-	-
4e.4.6	NRC Fees	-	-	-	-	-	-	247	25	271	271	-	-	-	-	-	-	-	-	-	-
4e.4.7	Emergency Planning Fees	-	-	-	-	-	-	38	4	42	-	42	-	-	-	-	-	-	-	-	-
4e.4.8	ISFSI Operating Costs	-	-	-	-	-	-	28	4	32	-	32	-	-	-	-	-	-	-	-	-
4e.4.9	NEI Fees	-	-	-	-	-	-	99	10	108	108	-	-	-	-	-	-	-	-	-	-
4e.4.10	Security Staff Cost	-	-	-	-	-	-	118	18	135	135	-	-	-	-	-	-	-	-	-	5,893
4e.4.11	DOC Staff Cost	-	-	-	-	-	-	2,169	325	2,495	2,495	-	-	-	-	-	-	-	-	-	36,143
4e.4.12	Utility Staff Cost	-	-	-	-	-	-	2,384	358	2,742	2,742	-	-	-	-	-	-	-	-	-	41,643
4e.4	Subtotal Period 4e Period-Dependent Costs	-	570	4	4	-	32	5,793	971	7,373	7,299	73	-	-	305	-	-	-	6,105	75	83,679

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
4e.0	TOTAL PERIOD 4e COST	-	570	4	4	-	32	11,931	2,639	15,179	15,106	73	-	-	305	-	-	-	6,105	118,876	83,679
PERIOD 4 TOTALS		2,869	30,838	8,386	7,143	10,363	29,454	87,869	38,220	215,143	210,840	388	3,916	90,801	99,359	3,666	402	-	13,467,710	614,522	1,336,903
PERIOD 5b - Site Restoration																					
Period 5b Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
5b.1.1.1	Reactor	-	6,065	-	-	-	-	-	910	6,975	-	-	6,975	-	-	-	-	-	-	119,121	-
5b.1.1.2	Fuel Handling	-	835	-	-	-	-	-	125	960	-	-	960	-	-	-	-	-	-	15,852	-
5b.1.1.3	Intake & CWS	-	379	-	-	-	-	-	57	436	-	-	436	-	-	-	-	-	-	7,440	-
5b.1.1.4	Miscellaneous Structures	-	996	-	-	-	-	-	149	1,146	-	-	1,146	-	-	-	-	-	-	19,549	-
5b.1.1.5	Primary Water Tank Foundation - Contam	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	48	-
5b.1.1.6	Reactor Auxiliary	-	1,445	-	-	-	-	-	217	1,662	-	-	1,662	-	-	-	-	-	-	25,872	-
5b.1.1.7	Refueling Water Storage Tank - Contam	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	106	-
5b.1.1.8	Turbine	-	1,266	-	-	-	-	-	190	1,455	-	-	1,455	-	-	-	-	-	-	28,421	-
5b.1.1.9	Turbine Pedestal	-	612	-	-	-	-	-	92	704	-	-	704	-	-	-	-	-	-	8,825	-
5b.1.1	Totals	-	11,606	-	-	-	-	-	1,741	13,347	-	-	13,347	-	-	-	-	-	-	225,033	-
Site Closeout Activities																					
5b.1.2	Remove Rubble	-	2,428	-	-	-	-	-	364	2,793	-	-	2,793	-	-	-	-	-	-	15,828	-
5b.1.3	Grade & landscape site	-	849	-	-	-	-	-	127	976	-	-	976	-	-	-	-	-	-	2,525	-
5b.1.4	Final report to NRC	-	-	-	-	-	-	149	22	171	171	-	-	-	-	-	-	-	-	-	1,560
5b.1	Subtotal Period 5b Activity Costs	-	14,883	-	-	-	-	149	2,255	17,287	171	-	17,115	-	-	-	-	-	-	243,386	1,560
Period 5b Additional Costs																					
5b.2.1	Concrete Processing	-	316	-	-	-	-	1	48	365	-	-	365	-	-	-	-	-	-	2,162	-
5b.2	Subtotal Period 5b Additional Costs	-	316	-	-	-	-	1	48	365	-	-	365	-	-	-	-	-	-	2,162	-
Period 5b Collateral Costs																					
5b.3.1	Small tool allowance	-	150	-	-	-	-	-	22	172	-	-	172	-	-	-	-	-	-	-	-
5b.3	Subtotal Period 5b Collateral Costs	-	150	-	-	-	-	-	22	172	-	-	172	-	-	-	-	-	-	-	-
Period 5b Period-Dependent Costs																					
5b.4.1	Insurance	-	-	-	-	-	-	547	55	602	-	602	-	-	-	-	-	-	-	-	-
5b.4.2	Property taxes	-	-	-	-	-	-	934	93	1,027	-	1,027	-	-	-	-	-	-	-	-	-
5b.4.3	Heavy equipment rental	-	4,301	-	-	-	-	-	645	4,946	-	-	4,946	-	-	-	-	-	-	-	-
5b.4.4	Plant energy budget	-	-	-	-	-	-	141	21	162	-	49	113	-	-	-	-	-	-	-	-
5b.4.5	NRC ISFSI Fees	-	-	-	-	-	-	190	19	208	-	208	-	-	-	-	-	-	-	-	-
5b.4.6	Emergency Planning Fees	-	-	-	-	-	-	94	9	104	-	104	-	-	-	-	-	-	-	-	-
5b.4.7	ISFSI Operating Costs	-	-	-	-	-	-	68	10	79	-	79	-	-	-	-	-	-	-	-	-
5b.4.8	NEI Fees	-	-	-	-	-	-	122	12	135	135	-	-	-	-	-	-	-	-	-	-
5b.4.9	Security Staff Cost	-	-	-	-	-	-	292	44	335	-	228	107	-	-	-	-	-	-	-	14,614
5b.4.10	DOC Staff Cost	-	-	-	-	-	-	5,949	892	6,841	-	-	6,841	-	-	-	-	-	-	-	93,531
5b.4.11	Utility Staff Cost	-	-	-	-	-	-	3,294	494	3,788	-	985	2,803	-	-	-	-	-	-	-	52,611
5b.4	Subtotal Period 5b Period-Dependent Costs	-	4,301	-	-	-	-	11,630	2,295	18,226	135	3,281	14,811	-	-	-	-	-	-	-	160,757
5b.0	TOTAL PERIOD 5b COST	-	19,650	-	-	-	-	11,780	4,620	36,051	306	3,281	32,464	-	-	-	-	-	-	245,548	162,317
PERIOD 5c - Fuel Storage Operations/Shipping																					
Period 5c Direct Decommissioning Activities																					
Period 5c Collateral Costs																					
5c.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	2,145	322	2,467	-	2,467	-	-	-	-	-	-	-	-	-
5c.3	Subtotal Period 5c Collateral Costs	-	-	-	-	-	-	2,145	322	2,467	-	2,467	-	-	-	-	-	-	-	-	-

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 5c Period-Dependent Costs																					
5c.4.1	Insurance	-	-	-	-	-	-	2,656	266	2,922	-	2,922	-	-	-	-	-	-	-	-	-
5c.4.2	Property taxes	-	-	-	-	-	-	4,534	453	4,987	-	4,987	-	-	-	-	-	-	-	-	-
5c.4.3	Plant energy budget	-	-	-	-	-	-	205	31	236	-	236	-	-	-	-	-	-	-	-	-
5c.4.4	NRC ISFSI Fees	-	-	-	-	-	-	920	92	1,012	-	1,012	-	-	-	-	-	-	-	-	-
5c.4.5	Emergency Planning Fees	-	-	-	-	-	-	458	46	504	-	504	-	-	-	-	-	-	-	-	-
5c.4.6	ISFSI Operating Costs	-	-	-	-	-	-	332	50	381	-	381	-	-	-	-	-	-	-	-	-
5c.4.7	NEI Fees	-	-	-	-	-	-	594	59	653	-	653	-	-	-	-	-	-	-	-	-
5c.4.8	Security Staff Cost	-	-	-	-	-	-	1,983	297	2,280	-	2,280	-	-	-	-	-	-	-	-	99,360
5c.4.9	Utility Staff Cost	-	-	-	-	-	-	5,379	807	6,186	-	6,186	-	-	-	-	-	-	-	-	92,357
5c.4	Subtotal Period 5c Period-Dependent Costs	-	-	-	-	-	-	17,061	2,101	19,162	-	19,162	-	-	-	-	-	-	-	-	191,718
5c.0	TOTAL PERIOD 5c COST	-	-	-	-	-	-	19,206	2,423	21,628	-	21,628	-	-	-	-	-	-	-	-	191,718
PERIOD 5d - GTCC shipping																					
Period 5d Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
5d.1.1.1	Vessel & Internals GTCC Disposal	-	-	45	-	-	10,802	-	1,625	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
5d.1.1	Totals	-	-	45	-	-	10,802	-	1,625	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
5d.1	Subtotal Period 5d Activity Costs	-	-	45	-	-	10,802	-	1,625	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
Period 5d Period-Dependent Costs																					
5d.4.1	Insurance	-	-	-	-	-	-	11	1	12	-	12	-	-	-	-	-	-	-	-	-
5d.4.2	Property taxes	-	-	-	-	-	-	19	2	21	-	21	-	-	-	-	-	-	-	-	-
5d.4.3	Plant energy budget	-	-	-	-	-	-	1	0	1	-	1	-	-	-	-	-	-	-	-	-
5d.4.4	NRC ISFSI Fees	-	-	-	-	-	-	4	0	4	-	4	-	-	-	-	-	-	-	-	-
5d.4.5	Emergency Planning Fees	-	-	-	-	-	-	2	0	2	-	2	-	-	-	-	-	-	-	-	-
5d.4.6	ISFSI Operating Costs	-	-	-	-	-	-	1	0	2	-	2	-	-	-	-	-	-	-	-	-
5d.4.7	NEI Fees	-	-	-	-	-	-	3	0	3	-	3	-	-	-	-	-	-	-	-	-
5d.4.8	Security Staff Cost	-	-	-	-	-	-	8	1	10	-	10	-	-	-	-	-	-	-	-	420
5d.4.9	Utility Staff Cost	-	-	-	-	-	-	23	3	26	-	26	-	-	-	-	-	-	-	-	390
5d.4	Subtotal Period 5d Period-Dependent Costs	-	-	-	-	-	-	72	9	81	-	81	-	-	-	-	-	-	-	-	810
5d.0	TOTAL PERIOD 5d COST	-	-	45	-	-	10,802	72	1,634	12,553	12,472	81	-	-	-	-	-	560	114,316	-	810
PERIOD 5e - ISFSI Decontamination																					
Period 5e Direct Decommissioning Activities																					
Period 5e Additional Costs																					
5e.2.1	ISFSI license termination	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
5e.2	Subtotal Period 5e Additional Costs	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
Period 5e Collateral Costs																					
5e.3.1	Small tool allowance	-	2	-	-	-	-	-	0	3	-	3	-	-	-	-	-	-	-	-	-
5e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	4	0	4	-	4	-	-	-	-	-	-	-	-	-
5e.3	Subtotal Period 5e Collateral Costs	-	2	-	-	-	-	4	1	7	-	7	-	-	-	-	-	-	-	-	-
Period 5e Period-Dependent Costs																					
5e.4.1	Insurance	-	-	-	-	-	-	97	10	107	-	107	-	-	-	-	-	-	-	-	-
5e.4.2	Property taxes	-	-	-	-	-	-	166	17	182	-	182	-	-	-	-	-	-	-	-	-
5e.4.3	Heavy equipment rental	-	113	-	-	-	-	-	17	130	-	130	-	-	-	-	-	-	-	-	-
5e.4.4	Plant energy budget	-	-	-	-	-	-	25	4	29	-	29	-	-	-	-	-	-	-	-	-
5e.4.5	NRC ISFSI Fees	-	-	-	-	-	-	34	3	37	-	37	-	-	-	-	-	-	-	-	-
5e.4.6	Security Staff Cost	-	-	-	-	-	-	36	5	42	-	42	-	-	-	-	-	-	-	-	1,818
5e.4.7	Utility Staff Cost	-	-	-	-	-	-	183	27	211	-	211	-	-	-	-	-	-	-	-	2,939
5e.4	Subtotal Period 5e Period-Dependent Costs	-	113	-	-	-	-	541	83	737	-	737	-	-	-	-	-	-	-	-	4,757

Table C-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR (Integrated with Unit 2 DECON) Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
5e.0	TOTAL PERIOD 5e COST	-	359	4	53	-	369	1,251	351	2,387	-	2,387	-	-	2,031	-	-	-	213,266	4,701	6,037
PERIOD 5f - ISFSI Site Restoration																					
Period 5f Direct Decommissioning Activities																					
Period 5f Additional Costs																					
5f.2.1	ISFSI site restoration	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
5f.2	Subtotal Period 5f Additional Costs	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
Period 5f Collateral Costs																					
5f.3.1	Small tool allowance	-	5	-	-	-	-	-	1	6	-	6	-	-	-	-	-	-	-	-	-
5f.3	Subtotal Period 5f Collateral Costs	-	5	-	-	-	-	-	1	6	-	6	-	-	-	-	-	-	-	-	-
Period 5f Period-Dependent Costs																					
5f.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5f.4.2	Property taxes	-	-	-	-	-	-	84	8	92	-	92	-	-	-	-	-	-	-	-	-
5f.4.3	Heavy equipment rental	-	37	-	-	-	-	-	6	43	-	43	-	-	-	-	-	-	-	-	-
5f.4.4	Plant energy budget	-	-	-	-	-	-	13	2	14	-	14	-	-	-	-	-	-	-	-	-
5f.4.5	Security Staff Cost	-	-	-	-	-	-	18	3	21	-	21	-	-	-	-	-	-	-	-	917
5f.4.6	Utility Staff Cost	-	-	-	-	-	-	85	13	98	-	98	-	-	-	-	-	-	-	-	1,307
5f.4	Subtotal Period 5f Period-Dependent Costs	-	37	-	-	-	-	199	31	268	-	268	-	-	-	-	-	-	-	-	2,224
5f.0	TOTAL PERIOD 5f COST	-	1,380	-	-	-	-	220	236	1,836	-	1,836	-	-	-	-	-	-	-	7,520	2,304
PERIOD 5 TOTALS		-	21,389	49	53	-	11,171	32,529	9,264	74,456	12,778	29,214	32,464	-	2,031	-	-	560	327,582	257,769	363,186
TOTAL COST TO DECOMMISSION		6,751	56,611	8,981	8,268	14,566	42,931	305,897	78,456	522,462	363,465	121,407	37,590	117,818	119,950	5,909	402	560	15,681,380	951,489	3,525,820

TOTAL COST TO DECOMMISSION WITH 17.67% CONTINGENCY:	**$522,462**	**thousands of 2004 dollars**
TOTAL NRC LICENSE TERMINATION COST IS 69.57% OR:	**$363,465**	**thousands of 2004 dollars**
SPENT FUEL MANAGEMENT COST IS 23.24% OR:	**$121,407**	**thousands of 2004 dollars**
NON-NUCLEAR DEMOLITION COST IS 7.19% OR:	**$37,590**	**thousands of 2004 dollars**
TOTAL RADWASTE VOLUME BURIED (EXCLUDING GTCC):	**126,261**	**cubic feet**
TOTAL GREATER THAN CLASS C RADWASTE VOLUME GENERATED:	**560**	**cubic feet**
TOTAL SCRAP METAL REMOVED:	**39,433**	**tons**
TOTAL CRAFT LABOR REQUIREMENTS:	**951,489**	**man-hours**

End Notes.
n/a - indicates that this activity not charged as decommissioning expense.
a - indicates that this activity performed by decommissioning staff.
0 - indicates that this value is less than 0.5 but is non-zero.
a cell containing " - " indicates a zero value

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 1a - Shutdown through Transition																					
Period 1a Direct Decommissioning Activities																					
1a.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
1a.1.2	Notification of Cessation of Operations									a											
1a.1.3	Remove fuel & source material									n/a											
1a.1.4	Notification of Permanent Defueling									a											
1a.1.5	Deactivate plant systems & process waste									a											
1a.1.6	Prepare and submit PSDAR	-	-	-	-	-	-	82	12	94	94	-	-	-	-	-	-	-	-	-	856
1a.1.7	Review plant dwgs & specs.	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,989
1a.1.8	Perform detailed rad survey									a											
1a.1.9	Estimate by-product inventory	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1a.1.10	End product description	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1a.1.11	Detailed by-product inventory	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
1a.1.12	Define major work sequence	-	-	-	-	-	-	307	46	353	353	-	-	-	-	-	-	-	-	-	3,210
1a.1.13	Perform SER and EA	-	-	-	-	-	-	127	19	146	146	-	-	-	-	-	-	-	-	-	1,327
1a.1.14	Perform Site-Specific Cost Study	-	-	-	-	-	-	204	31	235	235	-	-	-	-	-	-	-	-	-	2,140
1a.1.15	Prepare/submit License Termination Plan	-	-	-	-	-	-	168	25	193	193	-	-	-	-	-	-	-	-	-	1,753
1a.1.16	Receive NRC approval of termination plan									a											
Activity Specifications																					
1a.1.17.1	Plant & temporary facilities	-	-	-	-	-	-	201	30	231	208	-	23	-	-	-	-	-	-	-	2,106
1a.1.17.2	Plant systems	-	-	-	-	-	-	170	26	196	176	-	20	-	-	-	-	-	-	-	1,783
1a.1.17.3	NSSS Decontamination Flush	-	-	-	-	-	-	20	3	24	24	-	-	-	-	-	-	-	-	-	214
1a.1.17.4	Reactor Internals	-	-	-	-	-	-	290	44	334	334	-	-	-	-	-	-	-	-	-	3,039
1a.1.17.5	Reactor vessel	-	-	-	-	-	-	266	40	306	306	-	-	-	-	-	-	-	-	-	2,782
1a.1.17.6	Biological shield	-	-	-	-	-	-	20	3	24	24	-	-	-	-	-	-	-	-	-	214
1a.1.17.7	Steam generators	-	-	-	-	-	-	128	19	147	147	-	-	-	-	-	-	-	-	-	1,335
1a.1.17.8	Reinforced concrete	-	-	-	-	-	-	65	10	75	38	-	38	-	-	-	-	-	-	-	685
1a.1.17.9	Main Turbine	-	-	-	-	-	-	16	2	19	-	-	19	-	-	-	-	-	-	-	171
1a.1.17.10	Main Condensers	-	-	-	-	-	-	16	2	19	-	-	19	-	-	-	-	-	-	-	171
1a.1.17.11	Plant structures & buildings	-	-	-	-	-	-	128	19	147	73	-	73	-	-	-	-	-	-	-	1,335
1a.1.17.12	Waste management	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,909
1a.1.17.13	Facility & site closeout	-	-	-	-	-	-	37	6	42	21	-	21	-	-	-	-	-	-	-	385
1a.1.17	Total	-	-	-	-	-	-	1,547	232	1,779	1,587	-	213	-	-	-	-	-	-	-	16,190
Planning & Site Preparations																					
1a.1.18	Prepare dismantling sequence	-	-	-	-	-	-	98	15	113	113	-	-	-	-	-	-	-	-	-	1,027
1a.1.19	Plant prep. & temp. svces	-	-	-	-	-	-	2,419	363	2,782	2,782	-	-	-	-	-	-	-	-	-	-
1a.1.20	Design water clean-up system	-	-	-	-	-	-	57	9	66	66	-	-	-	-	-	-	-	-	-	599
1a.1.21	Rigging/Cont. Cntrl Envlps/tooling/etc.	-	-	-	-	-	-	2,048	307	2,355	2,355	-	-	-	-	-	-	-	-	-	-
1a.1.22	Procure casks/liners & containers	-	-	-	-	-	-	50	8	58	58	-	-	-	-	-	-	-	-	-	526
1a.1	Subtotal Period 1a Activity Costs	-	-	-	-	-	-	7,483	1,123	8,606	8,393	-	213	-	-	-	-	-	-	-	31,588
Period 1a Collateral Costs																					
1a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	990	149	1,139	-	1,139	-	-	-	-	-	-	-	-	-
1a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
1a.3.3	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
1a.3	Subtotal Period 1a Collateral Costs	-	-	-	-	-	-	1,356	203	1,559	420	1,139	-	-	-	-	-	-	-	-	-
Period 1a Period-Dependent Costs																					
1a.4.1	Insurance	-	-	-	-	-	-	586	59	645	645	-	-	-	-	-	-	-	-	-	-
1a.4.2	Property taxes	-	-	-	-	-	-	2,269	227	2,496	2,496	-	-	-	-	-	-	-	-	-	-
1a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
1a.4.4	Heavy equipment rental	-	326	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
1a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
1a.4.6	Plant energy budget	-	-	-	-	-	-	753	113	866	866	-	-	-	-	-	-	-	-	-	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1a Period-Dependent Costs (continued)																					
1a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
1a.4.8	Emergency Planning Fees	-	-	-	-	-	-	125	12	137	-	137	-	-	-	-	-	-	-	-	-
1a.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	997	149	1,146	-	1,146	-	-	-	-	-	-	-	-	-
1a.4.10	ISFSI Operating Costs	-	-	-	-	-	-	37	5	42	-	42	-	-	-	-	-	-	-	-	-
1a.4.11	INPO Fees	-	-	-	-	-	-	450	45	495	495	-	-	-	-	-	-	-	-	-	-
1a.4.12	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-
1a.4.13	Security Staff Cost	-	-	-	-	-	-	1,176	176	1,352	1,352	-	-	-	-	-	-	-	-	-	58,921
1a.4.14	Utility Staff Cost	-	-	-	-	-	-	24,067	3,615	27,712	27,712	-	-	-	-	-	-	-	-	-	438,000
1a.4	Subtotal Period 1a Period-Dependent Costs	-	567	5	5	-	42	30,885	4,562	36,067	34,741	1,325	-	-	404	-	-	-	8,103	99	496,921
1a.0	TOTAL PERIOD 1a COST	-	567	5	5	-	42	39,724	5,888	46,231	43,555	2,464	213	-	404	-	-	-	8,103	99	528,486
PERIOD 1b - Decommissioning Preparations																					
Period 1b Direct Decommissioning Activities																					
Detailed Work Procedures																					
1b.1.1.1	Plant systems	-	-	-	-	-	-	194	29	223	200	-	22	-	-	-	-	-	-	-	2,026
1b.1.1.2	NSSS Decontamination Flush	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1b.1.1.3	Reactor internals	-	-	-	-	-	-	102	15	118	118	-	-	-	-	-	-	-	-	-	1,070
1b.1.1.4	Remaining buildings	-	-	-	-	-	-	55	8	63	16	-	48	-	-	-	-	-	-	-	576
1b.1.1.5	CRD cooling assembly	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1b.1.1.6	CRD housings & ICI tubes	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1b.1.1.7	Incore instrumentation	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1b.1.1.8	Reactor vessel	-	-	-	-	-	-	148	22	171	171	-	-	-	-	-	-	-	-	-	1,554
1b.1.1.9	Facility closeout	-	-	-	-	-	-	49	7	56	28	-	28	-	-	-	-	-	-	-	514
1b.1.1.10	Missile shields	-	-	-	-	-	-	18	3	21	21	-	-	-	-	-	-	-	-	-	193
1b.1.1.11	Biological shield	-	-	-	-	-	-	49	7	56	56	-	-	-	-	-	-	-	-	-	514
1b.1.1.12	Steam generators	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,969
1b.1.1.13	Reinforced concrete	-	-	-	-	-	-	41	6	47	24	-	24	-	-	-	-	-	-	-	428
1b.1.1.14	Main Turbine	-	-	-	-	-	-	64	10	73	-	-	73	-	-	-	-	-	-	-	668
1b.1.1.15	Main Condensers	-	-	-	-	-	-	64	10	73	-	-	73	-	-	-	-	-	-	-	668
1b.1.1.16	Auxiliary building	-	-	-	-	-	-	112	17	128	116	-	13	-	-	-	-	-	-	-	1,166
1b.1.1.17	Reactor building	-	-	-	-	-	-	112	17	128	116	-	13	-	-	-	-	-	-	-	1,166
1b.1.1	Total	-	-	-	-	-	-	1,380	204	1,584	1,270	-	294	-	-	-	-	-	-	-	14,228
1b.1.2	Decon primary loop	1,036	-	-	-	-	-	-	518	1,553	1,553	-	-	-	-	-	-	-	-	1,067	-
1b.1	Subtotal Period 1b Activity Costs	1,036	-	-	-	-	-	1,380	722	3,117	2,823	-	294	-	-	-	-	-	-	1,067	14,228
Period 1b Additional Costs																					
1b.2.1	Asbestos Removal Program	-	377	0	79	-	89	-	128	674	674	-	-	-	6,591	-	-	-	54,573	6,939	-
1b.2.2	Spent Fuel Pool Isolation	-	-	-	-	-	-	5,572	836	6,408	6,408	-	-	-	-	-	-	-	-	-	-
1b.2.3	Mixed/Hazardous Waste	-	-	376	148	4,204	-	-	690	5,418	5,418	-	-	27,017	-	-	-	-	1,397,259	5,601	-
1b.2.4	Site Characterization Survey	-	-	-	-	-	-	1,269	381	1,650	1,650	-	-	-	-	-	-	-	-	-	-
1b.2	Subtotal Period 1b Additional Costs	-	377	376	228	4,204	89	6,842	2,035	14,150	14,150	-	-	27,017	6,591	-	-	-	1,451,832	12,540	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
1b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
1b.3.3	Process liquid waste	57	-	432	1,272	-	4,713	-	1,441	7,916	7,916	-	-	-	-	5,162	-	-	857,215	192	-
1b.3.4	Small tool allowance	-	6	-	-	-	-	-	1	7	7	-	-	-	-	-	-	-	-	-	-
1b.3.5	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
1b.3.6	Decon rig	1,243	-	-	-	-	-	-	186	1,430	1,430	-	-	-	-	-	-	-	-	-	-
1b.3.7	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,026	154	1,180	-	1,180	-	-	-	-	-	-	-	-	-
1b.3.8	Florida LLRW Inspection Fee	-	-	-	-	-	-	129	13	142	142	-	-	-	-	-	-	-	-	-	-
1b.3.9	Fixed Overhead	-	-	-	-	-	-	185	28	213	213	-	-	-	-	-	-	-	-	-	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
1b.3	Subtotal Period 1b Collateral Costs	2,003	962	432	1,272	-	4,713	2,223	2,204	13,809	12,629	1,180	-	-	-	5,182	-	-	857,215	192	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	21	-	-	-	-	-	-	5	26	26	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	297	30	327	327	-	-	-	-	-	-	-	-	-	-
1b.4.3	Property taxes	-	-	-	-	-	-	663	66	729	729	-	-	-	-	-	-	-	-	-	-
1b.4.4	Health physics supplies	-	167	-	-	-	-	-	42	208	208	-	-	-	-	-	-	-	-	-	-
1b.4.5	Heavy equipment rental	-	166	-	-	-	-	-	25	191	191	-	-	-	-	-	-	-	-	-	-
1b.4.6	Disposal of DAW generated	-	-	3	3	-	23	-	6	35	35	-	-	-	221	-	-	-	4,439	54	-
1b.4.7	Plant energy budget	-	-	-	-	-	-	764	115	878	878	-	-	-	-	-	-	-	-	-	-
1b.4.8	NRC Fees	-	-	-	-	-	-	134	13	148	148	-	-	-	-	-	-	-	-	-	-
1b.4.9	Emergency Planning Fees	-	-	-	-	-	-	63	6	70	-	70	-	-	-	-	-	-	-	-	-
1b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	505	76	581	-	581	-	-	-	-	-	-	-	-	-
1b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	19	3	21	-	21	-	-	-	-	-	-	-	-	-
1b.4.12	NEI Fees	-	-	-	-	-	-	66	7	73	73	-	-	-	-	-	-	-	-	-	-
1b.4.13	Security Staff Cost	-	-	-	-	-	-	596	89	685	685	-	-	-	-	-	-	-	-	-	29,864
1b.4.14	DOC Staff Cost	-	-	-	-	-	-	4,310	647	4,957	4,957	-	-	-	-	-	-	-	-	-	64,486
1b.4.15	Utility Staff Cost	-	-	-	-	-	-	12,285	1,843	14,128	14,128	-	-	-	-	-	-	-	-	-	223,057
1b.4	Subtotal Period 1b Period-Dependent Costs	21	333	3	3	-	23	19,703	2,972	23,058	22,386	672	-	-	221	-	-	-	4,439	54	317,407
1b.0	TOTAL PERIOD 1b COST	3,060	1,672	811	1,502	4,204	4,825	30,127	7,934	54,134	51,969	1,851	294	27,017	6,812	5,182	-	-	2,313,486	13,853	331,635
PERIOD 1 TOTALS		3,060	2,239	816	1,506	4,204	4,867	69,851	13,822	100,366	95,544	4,316	507	27,017	7,217	5,182	-	-	2,321,589	13,952	860,123
PERIOD 2a - Large Component Removal																					
Period 2a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
2a.1.1.1	Reactor Coolant Piping	49	36	5	15	-	177	-	81	365	365	-	-	-	466	-	-	-	56,418	2,256	-
2a.1.1.2	Pressurizer Relief Tank	5	5	1	3	-	27	-	11	52	52	-	-	-	78	-	-	-	8,699	255	-
2a.1.1.3	Reactor Coolant Pumps & Motors	116	64	36	370	112	1,808	-	602	3,108	3,108	-	-	458	5,898	-	-	-	620,400	4,938	-
2a.1.1.4	Pressurizer	27	41	429	482	-	570	-	281	1,829	1,829	-	-	-	2,134	-	-	-	197,650	2,291	-
2a.1.1.5	Steam Generators	158	2,061	1,610	2,400	2,161	2,822	-	2,145	13,356	13,356	-	-	14,265	10,568	-	-	-	2,456,344	15,426	-
2a.1.1.6	CRDMs/RCIa/Service Structure Removal	128	75	117	82	-	280	-	172	833	833	-	-	-	3,758	-	-	-	82,672	4,945	-
2a.1.1.7	Reactor Vessel Internals	81	1,885	4,421	1,185	-	5,060	190	5,425	18,267	18,267	-	-	-	1,377	631	402	-	287,524	26,871	1,207
2a.1.1.8	Reactor Vessel	70	3,588	1,268	1,042	-	8,614	190	7,039	22,412	22,412	-	-	-	6,731	2,254	-	-	990,810	26,871	1,207
2a.1.1	Totals	636	7,757	7,885	5,578	2,273	19,358	381	16,356	60,224	60,224	-	-	14,723	31,009	2,885	402	-	4,682,516	83,855	2,414
Removal of Major Equipment																					
2a.1.2	Main Turbine/Generator	-	225	142	23	561	478	-	278	1,708	1,708	-	-	2,641	2,934	-	-	-	517,834	6,103	-
2a.1.3	Main Condensers	-	811	75	98	574	415	-	415	2,385	2,385	-	-	5,098	2,549	-	-	-	484,292	22,471	-
Cascading Costs from Clean Building Demolition																					
2a.1.4.1	Reactor	-	1,056	-	-	-	-	-	158	1,214	1,214	-	-	-	-	-	-	-	-	20,764	-
2a.1.4.2	Reactor Auxiliary	-	180	-	-	-	-	-	24	184	184	-	-	-	-	-	-	-	-	2,864	-
2a.1.4.3	Steam Generator Blowdown Treatment	-	21	-	-	-	-	-	3	24	24	-	-	-	-	-	-	-	-	392	-
2a.1.4.4	Fuel Handling	-	91	-	-	-	-	-	14	104	104	-	-	-	-	-	-	-	-	1,680	-
2a.1.4	Totals	-	1,327	-	-	-	-	-	199	1,526	1,526	-	-	-	-	-	-	-	-	25,700	-
Disposal of Plant Systems																					
2a.1.5.1	Air Evacuation	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	177	-
2a.1.5.2	Air Evacuation - Insulated	-	25	-	-	-	-	-	4	28	-	-	28	-	-	-	-	-	-	777	-
2a.1.5.3	Auxiliary Steam - Insulated	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	410	-
2a.1.5.4	Chemical & Volume Control	92	88	7	14	64	127	-	112	504	504	-	-	633	561	-	-	-	66,093	4,612	-
2a.1.5.5	Chemical & Volume Control - Insulated	556	452	28	50	7	548	-	539	2,181	2,181	-	-	73	1,947	-	-	-	177,404	26,201	-
2a.1.5.6	Chemical Feed	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	71	-
2a.1.5.7	Chemical Feed - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	42	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2a.1.5.8	Circulating & Intake Cooling Water	-	210	-	-	-	-	-	31	241	-	-	241	-	-	-	-	-	-	6,590	-
2a.1.5.9	Component Cooling	-	70	-	-	-	-	-	11	81	-	-	81	-	-	-	-	-	-	2,187	-
2a.1.5.10	Component Cooling - RCA	-	258	24	69	689	456	-	294	1,790	1,790	-	-	6,782	1,620	-	-	-	420,606	6,839	-
2a.1.5.11	Condensate	-	153	-	-	-	-	-	23	176	-	-	176	-	-	-	-	-	-	4,668	-
2a.1.5.12	Condensate - Insulated	-	90	-	-	-	-	-	14	104	-	-	104	-	-	-	-	-	-	2,879	-
2a.1.5.13	Condensate Recovery	-	3	-	-	-	-	-	1	4	-	-	4	-	-	-	-	-	-	113	-
2a.1.5.14	Condensate Recovery - Insulated	-	0	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	15	-
2a.1.5.15	Condensate Recovery - Insulated - RCA	-	1	-	-	0	1	-	0	2	2	-	-	2	2	-	-	-	283	14	-
2a.1.5.16	Condensate Recovery - RCA	-	9	0	1	14	7	-	6	37	37	-	-	134	25	-	-	-	7,565	234	-
2a.1.5.17	Condenser Tube Cleaning	-	29	-	-	-	-	-	4	33	-	-	33	-	-	-	-	-	-	920	-
2a.1.5.18	Demineralized Makeup Water	-	4	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	137	-
2a.1.5.19	Demineralized Makeup Water - RCA	-	4	0	1	1	5	-	3	15	15	-	-	12	19	-	-	-	2,221	100	-
2a.1.5.20	Domestic/Makeup/Service Water	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	215	-
2a.1.5.21	Domestic/Makeup/Service Water - RCA	-	16	1	2	9	19	-	11	58	58	-	-	88	69	-	-	-	9,781	401	-
2a.1.5.22	Domestic/Makeup/Service Water-Ins	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	19	-
2a.1.5.23	Domestic/Makeup/Service Water-Ins - RCA	-	2	-	0	1	2	-	1	5	5	-	-	6	6	-	-	-	798	43	-
2a.1.5.24	Electrical - Clean	-	2,734	-	-	-	-	-	410	3,145	-	-	3,145	-	-	-	-	-	-	81,595	-
2a.1.5.25	Extraction Steam	-	64	-	-	-	-	-	10	74	-	-	74	-	-	-	-	-	-	1,887	-
2a.1.5.26	Extraction Steam - Insulated	-	71	-	-	-	-	-	11	82	-	-	82	-	-	-	-	-	-	2,280	-
2a.1.5.27	Feedwater - Insulated	-	97	-	-	-	-	-	14	111	-	-	111	-	-	-	-	-	-	3,077	-
2a.1.5.28	Feedwater - Insulated - RCA	-	31	2	7	67	42	-	30	179	179	-	-	862	150	-	-	-	40,342	818	-
2a.1.5.29	Fire Protection	-	42	-	-	-	-	-	6	48	-	-	48	-	-	-	-	-	-	1,310	-
2a.1.5.30	Fire Protection - Insulated	-	5	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	145	-
2a.1.5.31	HVAC	-	201	-	-	-	-	-	30	231	-	-	231	-	-	-	-	-	-	6,814	-
2a.1.5.32	Heater Drain & Vents - Insulated	-	170	-	-	-	-	-	26	196	-	-	196	-	-	-	-	-	-	5,363	-
2a.1.5.33	Hydrogen Sampling	-	36	2	4	36	32	-	24	139	139	-	-	378	115	-	-	-	25,618	1,034	-
2a.1.5.34	Integrated Leak Rate Testing	-	28	1	3	23	21	-	16	89	89	-	-	224	74	-	-	-	15,782	689	-
2a.1.5.35	Main Steam - Insulated	-	155	-	-	-	-	-	23	179	-	-	179	-	-	-	-	-	-	4,827	-
2a.1.5.36	Main Steam - Insulated - RCA	-	32	2	7	74	44	-	32	192	192	-	-	733	156	-	-	-	43,766	864	-
2a.1.5.37	Misc Bulk Gas Supply	-	10	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	346	-
2a.1.5.38	Misc Bulk Gas Supply - RCA	-	8	1	1	2	9	-	5	24	24	-	-	18	30	-	-	-	3,465	192	-
2a.1.5.39	Miscellaneous	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	33	-
2a.1.5.40	Miscellaneous - RCA	-	4	0	1	18	7	-	5	34	34	-	-	155	26	-	-	-	8,613	98	-
2a.1.5.41	Post Accident Sampling	-	3	-	-	-	1	-	1	4	4	-	-	-	2	-	-	-	195	78	-
2a.1.5.42	Post Accident Sampling - Insulated	-	24	0	0	-	6	-	7	37	37	-	-	-	20	-	-	-	1,753	699	-
2a.1.5.43	RCP Oil Collection	-	8	0	1	1	7	-	3	18	18	-	-	10	25	-	-	-	2,866	141	-
2a.1.5.44	SGBTF Blowdown - Insulated	-	558	18	55	802	249	-	332	2,014	2,014	-	-	7,898	951	-	-	-	399,867	15,079	-
2a.1.5.45	SGBTF Demin - Ins - RCA	-	36	1	4	13	36	-	21	110	110	-	-	128	126	-	-	-	16,542	939	-
2a.1.5.46	SGBTF Demin - RCA	-	54	2	7	86	41	-	38	229	229	-	-	850	152	-	-	-	47,553	1,409	-
2a.1.5.47	SGBTF Miscellaneous - RCA	-	19	1	3	41	10	-	14	87	87	-	-	408	37	-	-	-	19,610	510	-
2a.1.5.48	SGBTF Waste Management	-	53	1	5	90	12	-	31	192	192	-	-	888	50	-	-	-	39,870	1,437	-
2a.1.5.49	SGBTF Waste Management - Insulated	-	47	1	4	17	35	-	24	127	127	-	-	165	125	-	-	-	17,885	1,263	-
2a.1.5.50	Safety Injection	-	177	28	67	372	570	-	255	1,469	1,469	-	-	3,662	2,108	-	-	-	330,233	4,834	-
2a.1.5.51	Safety Injection - Insulated	-	624	39	80	235	782	-	403	2,162	2,162	-	-	2,318	2,778	-	-	-	343,043	18,305	-
2a.1.5.52	Sampling	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	236	-
2a.1.5.53	Sampling - Insulated	-	9	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	328	-
2a.1.5.54	Sampling - Insulated - RCA	-	24	2	3	6	26	-	14	74	74	-	-	58	92	-	-	-	10,513	594	-
2a.1.5.55	Sampling - RCA	-	21	1	2	10	19	-	12	66	66	-	-	101	66	-	-	-	10,203	533	-
2a.1.5.56	Secondary Side Wet Layup	-	9	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	308	-
2a.1.5.57	Secondary Side Wet Layup - Ins	-	12	-	-	-	-	-	2	13	-	-	13	-	-	-	-	-	-	399	-
2a.1.5.58	Service & Instrument Air	-	16	-	-	-	-	-	2	18	-	-	18	-	-	-	-	-	-	485	-
2a.1.5.59	Service & Instrument Air - Ins	-	8	-	-	-	-	-	1	9	-	-	9	-	-	-	-	-	-	258	-
2a.1.5.60	Sodium Hypochlorite	-	36	-	-	-	-	-	5	41	-	-	41	-	-	-	-	-	-	1,137	-
2a.1.5.61	Steam Gen Blowdown Cooling	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	387	-
2a.1.5.62	Steam Gen Blowdown Cooling - Ins - RCA	-	42	3	9	66	59	-	40	239	239	-	-	849	209	-	-	-	53,229	1,102	-
2a.1.5.63	Steam Gen Blowdown Cooling - Insulated	-	1	-	-	-	-	-	0	2	-	-	2	-	-	-	-	-	-	47	-
2a.1.5.64	Steam Gen Blowdown Cooling - RCA	-	56	4	12	117	82	-	54	326	326	-	-	1,153	291	-	-	-	72,896	1,451	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2a.1.5.65	Steam Generator Blowdown	-	21	1	2	9	14	-	10	56	56	-	-	87	49	-	-	-	7,933	577	-
2a.1.5.66	Steam Generator Blowdown - Insulated	-	45	1	4	16	34	-	23	123	123	-	-	162	120	-	-	-	17,322	1,220	-
2a.1.5.67	Turbine	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	29	-
2a.1.5.68	Turbine Cooling Water	-	47	-	-	-	-	-	7	54	-	-	54	-	-	-	-	-	-	1,431	-
2a.1.5.69	Turbine Cooling Water - Insulated	-	32	-	-	-	-	-	5	37	-	-	37	-	-	-	-	-	-	1,050	-
2a.1.5.70	Turbine Lube Oil & Diesel Oil	-	49	-	-	-	-	-	7	56	-	-	56	-	-	-	-	-	-	1,468	-
2a.1.5	Totals	648	7,182	177	417	2,907	3,300	-	3,020	17,651	12,586	-	5,065	28,630	12,005	-	-	-	2,213,646	224,771	-
2a.1.6	Scaffolding in support of decommissioning	-	621	8	4	83	6	-	171	893	893	-	-	739	37	-	-	-	38,973	19,803	-
2a.1	Subtotal Period 2a Activity Costs	1,283	17,924	8,287	6,119	6,398	23,558	381	20,436	84,388	79,322	-	5,065	51,831	48,534	2,885	402	-	7,935,261	382,703	2,414
Period 2a Additional Costs																					
2a.2.1	Curie Surcharge (excluding RPV)	-	-	-	-	-	865	-	216	1,081	1,081	-	-	-	-	-	-	-	-	-	-
2a.2	Subtotal Period 2a Additional Costs	-	-	-	-	-	865	-	216	1,081	1,081	-	-	-	-	-	-	-	-	-	-
Period 2a Collateral Costs																					
2a.3.1	Process liquid waste	103	-	58	280	-	755	-	288	1,481	1,481	-	-	-	-	942	-	-	128,256	146	-
2a.3.2	Small tool allowance	-	237	-	-	-	-	-	36	273	246	-	27	-	-	-	-	-	-	-	-
2a.3.3	Spent Fuel Capital and Transfer	-	-	-	-	-	-	2,069	310	2,380	-	2,380	-	-	-	-	-	-	-	-	-
2a.3.4	Florida LLRW Inspection Fee	-	-	-	-	-	-	213	21	234	234	-	-	-	-	-	-	-	-	-	-
2a.3.5	Fixed Overhead	-	-	-	-	-	-	472	71	542	542	-	-	-	-	-	-	-	-	-	-
2a.3	Subtotal Period 2a Collateral Costs	103	237	58	280	-	755	2,754	726	4,910	2,503	2,380	27	-	-	942	-	-	128,256	146	-
Period 2a Period-Dependent Costs																					
2a.4.1	Decon supplies	54	-	-	-	-	-	-	13	67	67	-	-	-	-	-	-	-	-	-	-
2a.4.2	Insurance	-	-	-	-	-	-	406	41	447	447	-	-	-	-	-	-	-	-	-	-
2a.4.3	Property taxes	-	-	-	-	-	-	966	99	1,064	976	-	108	-	-	-	-	-	-	-	-
2a.4.4	Health physics supplies	-	1,565	-	-	-	-	-	391	1,956	1,956	-	-	-	-	-	-	-	-	-	-
2a.4.5	Heavy equipment rental	-	2,179	-	-	-	-	-	327	2,506	2,506	-	-	-	-	-	-	-	-	-	-
2a.4.6	Disposal of DAW generated	-	-	57	59	-	471	-	132	719	719	-	-	-	4,538	-	-	-	90,931	1,114	-
2a.4.7	Plant energy budget	-	-	-	-	-	-	925	139	1,064	1,064	-	-	-	-	-	-	-	-	-	-
2a.4.8	NRC Fees	-	-	-	-	-	-	424	42	466	466	-	-	-	-	-	-	-	-	-	-
2a.4.9	Emergency Planning Fees	-	-	-	-	-	-	162	16	178	-	178	-	-	-	-	-	-	-	-	-
2a.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	1,269	193	1,462	-	1,462	-	-	-	-	-	-	-	-	-
2a.4.11	ISFSI Operating Costs	-	-	-	-	-	-	47	7	54	-	54	-	-	-	-	-	-	-	-	-
2a.4.12	NEI Fees	-	-	-	-	-	-	169	17	186	186	-	-	-	-	-	-	-	-	-	-
2a.4.13	Security Staff Cost	-	-	-	-	-	-	1,897	285	2,182	2,182	-	-	-	-	-	-	-	-	-	95,074
2a.4.14	DOC Staff Cost	-	-	-	-	-	-	13,171	1,976	15,147	15,147	-	-	-	-	-	-	-	-	-	204,983
2a.4.15	Utility Staff Cost	-	-	-	-	-	-	22,546	3,382	25,928	25,928	-	-	-	-	-	-	-	-	-	400,526
2a.4	Subtotal Period 2a Period-Dependent Costs	54	3,743	57	59	-	471	42,023	7,060	53,467	51,644	1,714	108	-	4,538	-	-	-	90,931	1,114	700,583
2a.0	TOTAL PERIOD 2a COST	1,440	21,904	8,400	6,458	6,398	25,649	45,157	28,440	143,846	134,551	4,094	5,201	51,831	53,072	3,827	402	-	8,154,448	383,964	702,997
PERIOD 2b - Site Decontamination																					
Period 2b Direct Decommissioning Activities																					
Disposal of Plant Systems																					
2b.1.1.1	Containmnt Spray & Refueling Water	-	349	57	125	480	1,176	-	475	2,642	2,642	-	-	4,526	4,686	-	-	-	558,440	9,708	-
2b.1.1.2	Containmnt Spray & Refueling Water - Ins	-	142	15	39	83	389	-	153	821	821	-	-	816	1,382	-	-	-	157,145	3,962	-
2b.1.1.3	Electrical - Contaminated	-	368	9	27	179	213	-	177	972	972	-	-	1,762	757	-	-	-	139,519	9,901	-
2b.1.1.4	Electrical - Decontaminated	-	2,253	83	242	1,638	1,933	-	1,337	7,485	7,485	-	-	16,129	6,860	-	-	-	1,270,556	59,140	-
2b.1.1.5	Emergency Diesel Generator	-	66	-	-	-	-	-	10	76	-	-	76	-	-	-	-	-	-	2,134	-
2b.1.1.6	Emergency Diesel Generator - Insulated	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	221	-
2b.1.1.7	Fire Protection - Insulated - RCA	-	3	0	1	5	4	-	3	16	16	-	-	49	13	-	-	-	3,173	91	-
2b.1.1.8	Fire Protection - RCA	-	40	2	6	59	42	-	30	179	179	-	-	576	149	-	-	-	38,731	1,054	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2b.1.1.9	HVAC - Contaminated	-	1,383	34	129	2,385	343	-	812	5,087	5,087	-	-	23,493	1,218	-	-	-	1,083,290	33,863	-
2b.1.1.10	Primary Water	-	124	11	23	113	198	-	102	570	570	-	-	1,114	902	-	-	-	108,361	3,375	-
2b.1.1.11	Primary Water - Insulated	-	2	-	0	0	2	-	1	6	6	-	-	1	8	-	-	-	716	55	-
2b.1.1.12	Radiation Monitoring	-	18	0	1	2	9	-	7	37	37	-	-	18	31	-	-	-	3,507	499	-
2b.1.1.13	Reactor Coolant - Insulated	-	58	3	5	10	55	-	31	161	161	-	-	98	194	-	-	-	21,346	1,603	-
2b.1.1.14	Refueling Equipment	-	118	5	15	90	127	-	77	432	432	-	-	890	450	-	-	-	78,479	3,295	-
2b.1.1.15	Secondary Side Wet Layup - Ins - RCA	-	10	1	1	3	12	-	6	33	33	-	-	33	41	-	-	-	5,058	236	-
2b.1.1.16	Secondary Side Wet Layup - RCA	-	10	1	1	14	9	-	7	40	40	-	-	133	31	-	-	-	8,126	239	-
2b.1.1.17	Service & Instrument Air - Ins - RCA	-	34	2	3	8	29	-	18	93	93	-	-	81	103	-	-	-	12,565	884	-
2b.1.1.18	Service & Instrument Air - RCA	-	21	1	2	4	18	-	11	57	57	-	-	40	65	-	-	-	7,419	546	-
2b.1.1.19	Waste Management	634	560	46	89	331	840	-	735	3,235	3,235	-	-	3,264	3,528	-	-	-	400,175	30,815	-
2b.1.1.20	Waste Management - Insulated	1,343	1,021	68	116	14	1,284	-	1,274	5,122	5,122	-	-	133	4,567	-	-	-	414,467	61,482	-
2b.1.1	Totals	1,977	6,585	338	825	5,397	6,883	-	5,266	27,071	26,966	-	83	53,157	24,985	-	-	-	4,287,075	223,102	-
2b.1.2	Scaffolding in support of decommissioning	-	777	10	6	104	8	-	213	1,117	1,117	-	-	924	46	-	-	-	46,216	24,754	-
Decontamination of Site Buildings																					
2b.1.3.1	Reactor	840	774	94	282	320	2,006	-	1,215	5,530	5,530	-	-	3,150	9,449	-	-	-	1,029,354	41,456	-
2b.1.3.2	Primary Water Tank & Pump - Contaminated	0	3	2	8	-	41	-	13	67	67	-	-	-	254	-	-	-	25,386	68	-
2b.1.3.3	Reactor Auxiliary	390	213	25	81	101	404	-	379	1,592	1,592	-	-	995	2,498	-	-	-	288,209	15,586	-
2b.1.3.4	Steam Generator Blowdown Treatment	126	53	8	26	3	134	-	115	465	465	-	-	26	825	-	-	-	83,584	4,622	-
2b.1.3	Totals	1,356	1,042	130	396	424	2,585	-	1,721	7,654	7,654	-	-	4,173	13,023	-	-	-	1,426,533	61,732	-
2b.1	Subtotal Period 2b Activity Costs	3,333	8,404	478	1,227	5,925	9,276	-	7,200	35,842	35,759	-	83	58,255	38,055	-	-	-	5,759,824	309,587	-
Period 2b Additional Costs																					
2b.2.1	Contaminated Soil Remediation	-	211	0	102	-	583	-	214	1,110	1,110	-	-	-	4,706	-	-	-	357,664	5,116	-
2b.2	Subtotal Period 2b Additional Costs	-	211	0	102	-	583	-	214	1,110	1,110	-	-	-	4,706	-	-	-	357,664	5,116	-
Period 2b Collateral Costs																					
2b.3.1	Process liquid waste	128	-	97	430	-	1,223	-	444	2,322	2,322	-	-	-	-	1,504	-	-	214,472	195	-
2b.3.2	Small tool allowance	-	188	-	-	-	-	-	28	216	216	-	-	-	-	-	-	-	-	-	-
2b.3.3	Spent Fuel Capital and Transfer	-	-	-	-	-	-	2,881	432	3,313	-	3,313	-	-	-	-	-	-	-	-	-
2b.3.4	Florida LLRW Inspection Fee	-	-	-	-	-	-	232	23	255	255	-	-	-	-	-	-	-	-	-	-
2b.3.5	Fixed Overhead	-	-	-	-	-	-	985	148	1,133	1,133	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	128	188	97	430	-	1,223	4,098	1,075	7,239	3,926	3,313	-	-	-	1,504	-	-	214,472	195	-
Period 2b Period-Dependent Costs																					
2b.4.1	Decon supplies	740	-	-	-	-	-	-	185	925	925	-	-	-	-	-	-	-	-	-	-
2b.4.2	Insurance	-	-	-	-	-	-	849	85	934	934	-	-	-	-	-	-	-	-	-	-
2b.4.3	Property taxes	-	-	-	-	-	-	1,350	135	1,485	1,485	-	-	-	-	-	-	-	-	-	-
2b.4.4	Health physics supplies	-	1,679	-	-	-	-	-	420	2,098	2,098	-	-	-	-	-	-	-	-	-	-
2b.4.5	Heavy equipment rental	-	4,579	-	-	-	-	-	687	5,266	5,266	-	-	-	-	-	-	-	-	-	-
2b.4.6	Disposal of DAW generated	-	-	67	70	-	559	-	157	854	854	-	-	-	5,387	-	-	-	107,961	1,323	-
2b.4.7	Plant energy budget	-	-	-	-	-	-	1,526	229	1,755	1,755	-	-	-	-	-	-	-	-	-	-
2b.4.8	NRC Fees	-	-	-	-	-	-	885	88	973	973	-	-	-	-	-	-	-	-	-	-
2b.4.9	Emergency Planning Fees	-	-	-	-	-	-	337	34	371	-	371	-	-	-	-	-	-	-	-	-
2b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	2,692	404	3,096	-	3,096	-	-	-	-	-	-	-	-	-
2b.4.11	Radwaste Processing Equipment/Services	-	-	-	-	-	-	486	73	559	559	-	-	-	-	-	-	-	-	-	-
2b.4.12	ISFSI Operating Costs	-	-	-	-	-	-	99	15	114	-	114	-	-	-	-	-	-	-	-	-
2b.4.13	NEI Fees	-	-	-	-	-	-	354	35	389	389	-	-	-	-	-	-	-	-	-	-
2b.4.14	Security Staff Cost	-	-	-	-	-	-	2,524	379	2,902	2,902	-	-	-	-	-	-	-	-	-	126,490
2b.4.15	DOC Staff Cost	-	-	-	-	-	-	23,442	3,518	26,959	26,959	-	-	-	-	-	-	-	-	-	371,243
2b.4.16	Utility Staff Cost	-	-	-	-	-	-	39,999	6,000	45,999	45,999	-	-	-	-	-	-	-	-	-	718,540
2b.4	Subtotal Period 2b Period-Dependent Costs	740	6,258	67	70	-	559	74,543	12,441	94,679	91,099	3,581	-	-	5,387	-	-	-	107,961	1,323	1,216,273
2b.0	TOTAL PERIOD 2b COST	4,201	15,061	643	1,829	5,925	11,641	78,641	20,930	138,871	131,894	6,894	83	58,255	48,148	1,504	-	-	6,439,921	316,221	1,216,273

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 2c - Decontamination Following Wet Fuel Storage																					
Period 2c Direct Decommissioning Activities																					
2c.1.1	Remove spent fuel racks	378	39	86	72	-	417	-	322	1,315	1,315	-	-	-	2,559	-	-	-	255,900	1,243	-
Disposal of Plant Systems																					
2c.1.2.1	Fuel Pool	110	95	9	21	39	213	-	142	627	627	-	-	384	761	-	-	-	83,292	4,105	-
2c.1.2.2	Fuel Pool - Insulated	58	55	4	8	8	83	-	66	283	283	-	-	81	295	-	-	-	29,703	2,680	-
2c.1.2.3	Spent Fuel	0	9	1	2	4	19	-	8	42	42	-	-	39	66	-	-	-	7,516	252	-
2c.1.2.4	Spent Fuel - Ins	-	1	-	0	-	2	-	1	4	4	-	-	-	5	-	-	-	491	30	-
2c.1.2	Totals	168	161	13	31	51	316	-	217	956	956	-	-	504	1,127	-	-	-	121,002	7,068	-
Decontamination of Site Buildings																					
2c.1.3.1	Fuel Handling	325	342	5	17	169	59	-	291	1,208	1,208	-	-	1,684	368	-	-	-	103,640	17,270	-
2c.1.3	Totals	325	342	5	17	169	59	-	291	1,208	1,208	-	-	1,684	368	-	-	-	103,640	17,270	-
2c.1.4	Scaffolding in support of decommissioning	-	155	2	1	21	2	-	43	223	223	-	-	185	9	-	-	-	9,243	4,951	-
2c.1	Subtotal Period 2c Activity Costs	870	697	107	121	241	793	-	873	3,702	3,702	-	-	2,353	4,064	-	-	-	489,785	30,532	-
Period 2c Collateral Costs																					
2c.3.1	Process liquid waste	70	-	55	240	-	713	-	255	1,332	1,332	-	-	-	-	842	-	-	120,548	107	-
2c.3.2	Small tool allowance	-	25	-	-	-	-	-	4	29	29	-	-	-	-	-	-	-	-	-	-
2c.3.3	Decommissioning Equipment Disposition	-	-	62	43	675	49	-	126	955	955	-	-	6,000	300	-	-	-	300,000	735	-
2c.3.4	Spent Fuel Capital and Transfer	-	-	-	-	-	-	321	48	369	-	369	-	-	-	-	-	-	-	-	-
2c.3.5	Florida LLRW Inspection Fee	-	-	-	-	-	-	29	3	32	32	-	-	-	-	-	-	-	-	-	-
2c.3.6	Fbrd Overhead	-	-	-	-	-	-	189	28	217	217	-	-	-	-	-	-	-	-	-	-
2c.3	Subtotal Period 2c Collateral Costs	70	25	116	283	675	762	539	464	2,934	2,565	369	-	6,000	300	842	-	-	420,548	842	-
Period 2c Period-Dependent Costs																					
2c.4.1	Decon supplies	77	-	-	-	-	-	-	19	96	96	-	-	-	-	-	-	-	-	-	-
2c.4.2	Insurance	-	-	-	-	-	-	163	16	179	179	-	-	-	-	-	-	-	-	-	-
2c.4.3	Property taxes	-	-	-	-	-	-	259	26	285	285	-	-	-	-	-	-	-	-	-	-
2c.4.4	Health physics supplies	-	227	-	-	-	-	-	57	283	283	-	-	-	-	-	-	-	-	-	-
2c.4.5	Heavy equipment rental	-	878	-	-	-	-	-	132	1,009	1,009	-	-	-	-	-	-	-	-	-	-
2c.4.6	Disposal of DAW generated	-	-	15	16	-	124	-	35	189	189	-	-	-	1,191	-	-	-	23,676	293	-
2c.4.7	Plant energy budget	-	-	-	-	-	-	156	23	179	179	-	-	-	-	-	-	-	-	-	-
2c.4.8	NRC Fees	-	-	-	-	-	-	170	17	187	187	-	-	-	-	-	-	-	-	-	-
2c.4.9	Emergency Planning Fees	-	-	-	-	-	-	26	3	29	-	29	-	-	-	-	-	-	-	-	-
2c.4.10	Radwaste Processing Equipment/Services	-	-	-	-	-	-	186	28	214	214	-	-	-	-	-	-	-	-	-	-
2c.4.11	ISFSI Operating Costs	-	-	-	-	-	-	19	3	22	-	22	-	-	-	-	-	-	-	-	-
2c.4.12	NEI Fees	-	-	-	-	-	-	68	7	75	75	-	-	-	-	-	-	-	-	-	-
2c.4.13	Security Staff Cost	-	-	-	-	-	-	609	91	700	700	-	-	-	-	-	-	-	-	-	30,510
2c.4.14	DOC Staff Cost	-	-	-	-	-	-	3,453	518	3,971	3,971	-	-	-	-	-	-	-	-	-	54,000
2c.4.15	Utility Staff Cost	-	-	-	-	-	-	6,543	981	7,525	7,525	-	-	-	-	-	-	-	-	-	110,700
2c.4	Subtotal Period 2c Period-Dependent Costs	77	1,105	15	16	-	124	11,651	1,956	14,942	14,891	51	-	-	1,191	-	-	-	23,676	293	195,210
2c.0	TOTAL PERIOD 2c COST	1,017	1,827	238	420	916	1,679	12,190	3,292	21,578	21,158	420	-	8,353	5,555	842	-	-	934,209	31,667	195,210
PERIOD 2e - License Termination																					
Period 2e Direct Decommissioning Activities																					
2e.1.1	ORISE confirmatory survey	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
2e.1.2	Terminate license									a											
2e.1	Subtotal Period 2e Activity Costs	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 2e Additional Costs																					
2e.2.1	License Termination Survey	-	-	-	-	-	-	6,573	1,972	8,545	8,545	-	-	-	-	-	-	-	-	165,498	-
2e.2	Subtotal Period 2e Additional Costs	-	-	-	-	-	-	6,573	1,972	8,545	8,545	-	-	-	-	-	-	-	-	165,498	-
Period 2e Collateral Costs																					
2e.3.1	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
2e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
2e.3.3	Fixed Overhead	-	-	-	-	-	-	275	41	316	316	-	-	-	-	-	-	-	-	-	-
2e.3	Subtotal Period 2e Collateral Costs	-	-	-	-	-	-	1,158	174	1,332	1,332	-	-	-	-	-	-	-	-	-	-
Period 2e Period-Dependent Costs																					
2e.4.1	Insurance	-	-	-	-	-	-	221	22	243	243	-	-	-	-	-	-	-	-	-	-
2e.4.2	Property taxes	-	-	-	-	-	-	376	38	414	414	-	-	-	-	-	-	-	-	-	-
2e.4.3	Health physics supplies	-	723	-	-	-	-	-	181	904	904	-	-	-	-	-	-	-	-	-	-
2e.4.4	Disposal of DAW generated	-	-	4	4	-	32	-	9	48	48	-	-	-	305	-	-	-	6,105	75	-
2e.4.5	Plant energy budget	-	-	-	-	-	-	114	17	131	131	-	-	-	-	-	-	-	-	-	-
2e.4.6	NRC Fees	-	-	-	-	-	-	247	25	271	271	-	-	-	-	-	-	-	-	-	-
2e.4.7	Emergency Planning Fees	-	-	-	-	-	-	38	4	42	-	42	-	-	-	-	-	-	-	-	-
2e.4.8	ISFSI Operating Costs	-	-	-	-	-	-	28	4	32	-	32	-	-	-	-	-	-	-	-	-
2e.4.9	NEI Fees	-	-	-	-	-	-	99	10	108	108	-	-	-	-	-	-	-	-	-	-
2e.4.10	Security Staff Cost	-	-	-	-	-	-	486	73	559	559	-	-	-	-	-	-	-	-	-	24,357
2e.4.11	DOC Staff Cost	-	-	-	-	-	-	3,903	585	4,488	4,488	-	-	-	-	-	-	-	-	-	57,357
2e.4.12	Utility Staff Cost	-	-	-	-	-	-	5,614	842	6,456	6,456	-	-	-	-	-	-	-	-	-	85,643
2e.4	Subtotal Period 2e Period-Dependent Costs	-	723	4	4	-	32	11,124	1,809	13,696	13,622	73	-	-	305	-	-	-	6,105	75	167,357
2e.0	TOTAL PERIOD 2e COST	-	723	4	4	-	32	18,977	3,991	23,730	23,656	73	-	-	305	-	-	-	6,105	165,571	167,357
PERIOD 2 TOTALS		6,658	39,515	9,284	8,710	13,238	39,000	154,965	56,654	328,025	311,259	11,481	5,284	118,439	107,080	6,173	402	-	15,534,680	897,422	2,281,837
PERIOD 3b - Site Restoration																					
Period 3b Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
3b.1.1.1	Reactor	-	6,089	-	-	-	-	-	910	6,980	-	-	6,980	-	-	-	-	-	-	119,210	-
3b.1.1.2	Intake Structure & CWS	-	617	-	-	-	-	-	93	710	-	-	710	-	-	-	-	-	-	12,136	-
3b.1.1.3	Miscellaneous Structures	-	3,005	-	-	-	-	-	451	3,456	-	-	3,456	-	-	-	-	-	-	62,286	-
3b.1.1.4	Primary Water Tank & Pump - Contaminated	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	48	-
3b.1.1.5	Reactor Auxiliary	-	1,445	-	-	-	-	-	217	1,662	-	-	1,662	-	-	-	-	-	-	25,872	-
3b.1.1.6	Steam Generator Blowdown Treatment	-	402	-	-	-	-	-	60	462	-	-	462	-	-	-	-	-	-	7,829	-
3b.1.1.7	Turbine	-	1,256	-	-	-	-	-	188	1,444	-	-	1,444	-	-	-	-	-	-	28,234	-
3b.1.1.8	Turbine Pedestal	-	612	-	-	-	-	-	92	704	-	-	704	-	-	-	-	-	-	8,825	-
3b.1.1.9	Fuel Handling	-	835	-	-	-	-	-	125	960	-	-	960	-	-	-	-	-	-	15,652	-
3b.1.1	Totals	-	14,244	-	-	-	-	-	2,137	16,380	-	-	16,380	-	-	-	-	-	-	280,072	-
Site Closeout Activities																					
3b.1.2	Grade & landscape site	-	849	-	-	-	-	-	127	976	-	-	976	-	-	-	-	-	-	2,525	-
3b.1.3	Final report to NRC	-	-	-	-	-	-	64	10	73	73	-	-	-	-	-	-	-	-	-	668
3b.1	Subtotal Period 3b Activity Costs	-	15,092	-	-	-	-	64	2,273	17,430	73	-	17,356	-	-	-	-	-	-	282,597	668
Period 3b Additional Costs																					
3b.2.1	Concrete Processing	-	436	-	-	-	-	2	66	503	-	-	503	-	-	-	-	-	-	2,978	-
3b.2.2	Circulating Water Diffuser Isolation	-	124	-	-	-	-	-	19	143	-	-	143	-	-	-	-	-	-	1,653	-
3b.2	Subtotal Period 3b Additional Costs	-	560	-	-	-	-	2	84	646	-	-	646	-	-	-	-	-	-	4,631	-
Period 3b Collateral Costs																					
3b.3.1	Small tool allowance	-	174	-	-	-	-	-	26	200	-	-	200	-	-	-	-	-	-	-	-
3b.3	Subtotal Period 3b Collateral Costs	-	174	-	-	-	-	-	26	200	-	-	200	-	-	-	-	-	-	-	-

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 3b Period-Dependent Costs																					
3b.4.1	Insurance	-	-	-	-	-	-	547	55	602	-	602	-	-	-	-	-	-	-	-	-
3b.4.2	Property taxes	-	-	-	-	-	-	934	93	1,027	-	1,027	-	-	-	-	-	-	-	-	-
3b.4.3	Heavy equipment rental	-	4,301	-	-	-	-	-	645	4,946	-	-	4,946	-	-	-	-	-	-	-	-
3b.4.4	Plant energy budget	-	-	-	-	-	-	141	21	162	-	49	113	-	-	-	-	-	-	-	-
3b.4.5	NRC ISFSI Fees	-	-	-	-	-	-	190	19	208	-	208	-	-	-	-	-	-	-	-	-
3b.4.6	Emergency Planning Fees	-	-	-	-	-	-	94	9	104	-	104	-	-	-	-	-	-	-	-	-
3b.4.7	ISFSI Operating Costs	-	-	-	-	-	-	68	10	79	-	79	-	-	-	-	-	-	-	-	-
3b.4.8	NEI Fees	-	-	-	-	-	-	122	12	135	135	-	-	-	-	-	-	-	-	-	-
3b.4.9	Security Staff Cost	-	-	-	-	-	-	1,205	181	1,386	-	943	444	-	-	-	-	-	-	-	60,406
3b.4.10	DOC Staff Cost	-	-	-	-	-	-	10,537	1,581	12,118	-	-	12,118	-	-	-	-	-	-	-	153,937
3b.4.11	Utility Staff Cost	-	-	-	-	-	-	8,576	1,286	9,862	-	2,564	7,298	-	-	-	-	-	-	-	125,683
3b.4	Subtotal Period 3b Period-Dependent Costs	-	4,301	-	-	-	-	22,414	3,913	30,628	135	5,575	24,919	-	-	-	-	-	-	-	340,026
3b.0	TOTAL PERIOD 3b COST	-	20,128	-	-	-	-	22,460	6,297	48,904	208	5,575	43,121	-	-	-	-	-	-	267,226	340,693
PERIOD 3c - Fuel Storage Operations/Shipping																					
Period 3c Direct Decommissioning Activities																					
Period 3c Collateral Costs																					
3c.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,632	245	1,877	-	1,877	-	-	-	-	-	-	-	-	-
3c.3	Subtotal Period 3c Collateral Costs	-	-	-	-	-	-	1,632	245	1,877	-	1,877	-	-	-	-	-	-	-	-	-
Period 3c Period-Dependent Costs																					
3c.4.1	Insurance	-	-	-	-	-	-	2,656	266	2,922	-	2,922	-	-	-	-	-	-	-	-	-
3c.4.2	Property taxes	-	-	-	-	-	-	4,534	453	4,987	-	4,987	-	-	-	-	-	-	-	-	-
3c.4.3	Plant energy budget	-	-	-	-	-	-	205	31	236	-	236	-	-	-	-	-	-	-	-	-
3c.4.4	NRC ISFSI Fees	-	-	-	-	-	-	920	92	1,012	-	1,012	-	-	-	-	-	-	-	-	-
3c.4.5	Emergency Planning Fees	-	-	-	-	-	-	458	46	504	-	504	-	-	-	-	-	-	-	-	-
3c.4.6	ISFSI Operating Costs	-	-	-	-	-	-	332	50	381	-	381	-	-	-	-	-	-	-	-	-
3c.4.7	NEI Fees	-	-	-	-	-	-	594	59	653	-	653	-	-	-	-	-	-	-	-	-
3c.4.8	Security Staff Cost	-	-	-	-	-	-	1,983	297	2,280	-	2,280	-	-	-	-	-	-	-	-	99,360
3c.4.9	Utility Staff Cost	-	-	-	-	-	-	5,379	807	6,186	-	6,186	-	-	-	-	-	-	-	-	92,357
3c.4	Subtotal Period 3c Period-Dependent Costs	-	-	-	-	-	-	17,061	2,101	19,162	-	19,162	-	-	-	-	-	-	-	-	191,718
3c.0	TOTAL PERIOD 3c COST	-	-	-	-	-	-	18,693	2,346	21,039	-	21,039	-	-	-	-	-	-	-	-	191,718
PERIOD 3d - GTCC shipping																					
Period 3d Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
3d.1.1.1	Vessel & Internals GTCC Disposal	-	-	45	-	-	10,802	-	1,825	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
3d.1.1	Totals	-	-	45	-	-	10,802	-	1,825	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
3d.1	Subtotal Period 3d Activity Costs	-	-	45	-	-	10,802	-	1,825	12,472	12,472	-	-	-	-	-	-	560	114,316	-	-
Period 3d Period-Dependent Costs																					
3d.4.1	Insurance	-	-	-	-	-	-	11	1	12	-	12	-	-	-	-	-	-	-	-	-
3d.4.2	Property taxes	-	-	-	-	-	-	19	2	21	-	21	-	-	-	-	-	-	-	-	-
3d.4.3	Plant energy budget	-	-	-	-	-	-	1	0	1	-	1	-	-	-	-	-	-	-	-	-
3d.4.4	NRC ISFSI Fees	-	-	-	-	-	-	4	0	4	-	4	-	-	-	-	-	-	-	-	-
3d.4.5	Emergency Planning Fees	-	-	-	-	-	-	2	0	2	-	2	-	-	-	-	-	-	-	-	-
3d.4.6	ISFSI Operating Costs	-	-	-	-	-	-	1	0	2	-	2	-	-	-	-	-	-	-	-	-
3d.4.7	NEI Fees	-	-	-	-	-	-	3	0	3	-	3	-	-	-	-	-	-	-	-	-
3d.4.8	Security Staff Cost	-	-	-	-	-	-	8	1	10	-	10	-	-	-	-	-	-	-	-	420
3d.4.9	Utility Staff Cost	-	-	-	-	-	-	23	3	26	-	26	-	-	-	-	-	-	-	-	390
3d.4	Subtotal Period 3d Period-Dependent Costs	-	-	-	-	-	-	72	9	81	-	81	-	-	-	-	-	-	-	-	810

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
3d.0	TOTAL PERIOD 3d COST	-	-	45	-	-	10,802	72	1,634	12,553	12,472	81	-	-	-	-	-	560	114,316	-	810
PERIOD 3e - ISFSI Decontamination																					
Period 3e Direct Decommissioning Activities																					
Period 3e Additional Costs																					
3e.2.1	ISFSI license termination	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
3e.2	Subtotal Period 3e Additional Costs	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
Period 3e Collateral Costs																					
3e.3.1	Small tool allowance	-	2	-	-	-	-	-	0	3	-	3	-	-	-	-	-	-	-	-	-
3e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	4	0	4	-	4	-	-	-	-	-	-	-	-	-
3e.3	Subtotal Period 3e Collateral Costs	-	2	-	-	-	-	4	1	7	-	7	-	-	-	-	-	-	-	-	-
Period 3e Period-Dependent Costs																					
3e.4.1	Insurance	-	-	-	-	-	-	97	10	107	-	107	-	-	-	-	-	-	-	-	-
3e.4.2	Property taxes	-	-	-	-	-	-	166	17	182	-	182	-	-	-	-	-	-	-	-	-
3e.4.3	Heavy equipment rental	-	113	-	-	-	-	-	17	130	-	130	-	-	-	-	-	-	-	-	-
3e.4.4	Plant energy budget	-	-	-	-	-	-	25	4	29	-	29	-	-	-	-	-	-	-	-	-
3e.4.5	NRC ISFSI Fees	-	-	-	-	-	-	34	3	37	-	37	-	-	-	-	-	-	-	-	-
3e.4.6	Security Staff Cost	-	-	-	-	-	-	36	5	42	-	42	-	-	-	-	-	-	-	-	1,818
3e.4.7	Utility Staff Cost	-	-	-	-	-	-	183	27	211	-	211	-	-	-	-	-	-	-	-	2,939
3e.4	Subtotal Period 3e Period-Dependent Costs	-	113	-	-	-	-	541	83	737	-	737	-	-	-	-	-	-	-	-	4,757
3e.0	TOTAL PERIOD 3e COST	-	359	4	53	-	369	1,251	351	2,387	-	2,387	-	-	2,031	-	-	-	213,266	4,701	6,037
PERIOD 3f - ISFSI Site Restoration																					
Period 3f Direct Decommissioning Activities																					
Period 3f Additional Costs																					
3f.2.1	ISFSI site restoration	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
3f.2	Subtotal Period 3f Additional Costs	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
Period 3f Collateral Costs																					
3f.3.1	Small tool allowance	-	5	-	-	-	-	-	1	6	-	6	-	-	-	-	-	-	-	-	-
3f.3	Subtotal Period 3f Collateral Costs	-	5	-	-	-	-	-	1	6	-	6	-	-	-	-	-	-	-	-	-
Period 3f Period-Dependent Costs																					
3f.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3f.4.2	Property taxes	-	-	-	-	-	-	84	8	92	-	92	-	-	-	-	-	-	-	-	-
3f.4.3	Heavy equipment rental	-	37	-	-	-	-	-	6	43	-	43	-	-	-	-	-	-	-	-	-
3f.4.4	Plant energy budget	-	-	-	-	-	-	13	2	14	-	14	-	-	-	-	-	-	-	-	-
3f.4.5	Security Staff Cost	-	-	-	-	-	-	18	3	21	-	21	-	-	-	-	-	-	-	-	917
3f.4.6	Utility Staff Cost	-	-	-	-	-	-	85	13	98	-	98	-	-	-	-	-	-	-	-	1,307
3f.4	Subtotal Period 3f Period-Dependent Costs	-	37	-	-	-	-	199	31	268	-	268	-	-	-	-	-	-	-	-	2,224
3f.0	TOTAL PERIOD 3f COST	-	1,380	-	-	-	-	220	236	1,836	-	1,836	-	-	-	-	-	-	-	7,520	2,304
PERIOD 3 TOTALS		-	21,868	49	53	-	11,171	42,716	10,864	86,719	12,680	30,918	43,121	-	2,031	-	-	560	327,582	299,449	541,562
TOTAL COST TO DECOMMISSION		9,718	63,620	10,149	10,271	17,442	55,039	267,532	81,339	515,110	419,483	46,715	48,912	145,456	116,328	11,355	402	560	18,183,850	1,210,823	3,683,522

Table C-2
St. Lucie Nuclear Plant, Unit 2
DECON Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes				Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
															Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet			

TOTAL COST TO DECOMMISSION WITH 18.75% CONTINGENCY:	$515,110	thousands of 2004 dollars
TOTAL NRC LICENSE TERMINATION COST IS 81.44% OR:	$419,483	thousands of 2004 dollars
SPENT FUEL MANAGEMENT COST IS 9.07% OR:	$46,715	thousands of 2004 dollars
NON-NUCLEAR DEMOLITION COST IS 9.5% OR:	$48,912	thousands of 2004 dollars
TOTAL RADWASTE VOLUME BURIED (EXCLUDING GTCC):	128,085	cubic feet
TOTAL GREATER THAN CLASS C RADWASTE VOLUME GENERATED:	560	cubic feet
TOTAL SCRAP METAL REMOVED:	42,549	tons
TOTAL CRAFT LABOR REQUIREMENTS:	1,210,823	man-hours

End Notes:
n/a - indicates that this activity not charged as decommissioning expense.
a - indicates that this activity performed by decommissioning staff.
0 - indicates that this value is less than 0.5 but is non-zero.
a cell containing " - " indicates a zero value

APPENDIX D

DETAILED COST ANALYSES

SAFSTOR

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 1a - Shutdown through Transition																					
Period 1a Direct Decommissioning Activities																					
1a.1.1	SAFSTOR site characterization survey	-	-	-	-	-	-	345	104	449	449	-	-	-	-	-	-	-	-	-	-
1a.1.2	Prepare preliminary decommissioning cost	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
1a.1.3	Notification of Cessation of Operations									a											
1a.1.4	Remove fuel & source material									n/a											
1a.1.5	Notification of Permanent Defueling									a											
1a.1.6	Deactivate plant systems & process waste									a											
1a.1.7	Prepare and submit PSDAR	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.8	Review plant dwgs & specs.	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
1a.1.9	Perform detailed rad survey									a											
1a.1.10	Estimate by-product inventory	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.11	End product description	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.12	Detailed by-product inventory	-	-	-	-	-	-	143	22	165	165	-	-	-	-	-	-	-	-	-	1,500
1a.1.13	Define major work sequence	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
1a.1.14	Perform SER and EA	-	-	-	-	-	-	296	44	341	341	-	-	-	-	-	-	-	-	-	3,100
1a.1.15	Perform Site-Specific Cost Study	-	-	-	-	-	-	478	72	549	549	-	-	-	-	-	-	-	-	-	5,000
Activity Specifications																					
1a.1.16.1	Prepare plant and facilities for SAFSTOR	-	-	-	-	-	-	470	71	541	541	-	-	-	-	-	-	-	-	-	4,920
1a.1.16.2	Plant systems	-	-	-	-	-	-	398	60	458	458	-	-	-	-	-	-	-	-	-	4,167
1a.1.16.3	Plant structures and buildings	-	-	-	-	-	-	298	45	343	343	-	-	-	-	-	-	-	-	-	3,120
1a.1.16.4	Waste management	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.16.5	Facility and site dormancy	-	-	-	-	-	-	191	29	220	220	-	-	-	-	-	-	-	-	-	2,000
1a.1.16	Total	-	-	-	-	-	-	1,549	232	1,781	1,781	-	-	-	-	-	-	-	-	-	16,207
Detailed Work Procedures																					
1a.1.17.1	Plant systems	-	-	-	-	-	-	113	17	130	130	-	-	-	-	-	-	-	-	-	1,183
1a.1.17.2	Facility closeout & dormancy	-	-	-	-	-	-	115	17	132	132	-	-	-	-	-	-	-	-	-	1,200
1a.1.17	Total	-	-	-	-	-	-	228	34	262	262	-	-	-	-	-	-	-	-	-	2,383
1a.1.18	Procure vacuum drying system	-	-	-	-	-	-	10	1	11	11	-	-	-	-	-	-	-	-	-	100
1a.1.19	Drain/de-energize non-cont. systems									a											
1a.1.20	Drain & dry NSSS									a											
1a.1.21	Drain/de-energize contaminated systems									a											
1a.1.22	Decon/secure contaminated systems									a											
1a.1	Subtotal Period 1a Activity Costs	-	-	-	-	-	-	3,775	618	4,393	4,393	-	-	-	-	-	-	-	-	-	35,890
Period 1a Collateral Costs																					
1a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,190	179	1,369	-	1,369	-	-	-	-	-	-	-	-	-
1a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
1a.3.3	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
1a.3	Subtotal Period 1a Collateral Costs	-	-	-	-	-	-	1,556	233	1,789	420	1,369	-	-	-	-	-	-	-	-	-
Period 1a Period-Dependent Costs																					
1a.4.1	Insurance	-	-	-	-	-	-	14	1	15	15	-	-	-	-	-	-	-	-	-	-
1a.4.2	Property taxes	-	-	-	-	-	-	2,398	240	2,638	2,638	-	-	-	-	-	-	-	-	-	-
1a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
1a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
1a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
1a.4.6	Plant energy budget	-	-	-	-	-	-	753	113	866	866	-	-	-	-	-	-	-	-	-	-
1a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
1a.4.8	Emergency Planning Fees	-	-	-	-	-	-	125	12	137	-	137	-	-	-	-	-	-	-	-	-
1a.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	997	149	1,146	-	1,146	-	-	-	-	-	-	-	-	-
1a.4.10	ISFSI Operating Costs	-	-	-	-	-	-	37	5	42	-	42	-	-	-	-	-	-	-	-	-
1a.4.11	INPO Fees	-	-	-	-	-	-	450	45	495	495	-	-	-	-	-	-	-	-	-	-
1a.4.12	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1a Period-Dependent Costs (continued)																					
1a.4.13	Security Staff Cost	-	-	-	-	-	-	541	81	622	622	-	-	-	-	-	-	-	-	-	27,114
1a.4.14	Utility Staff Cost	-	-	-	-	-	-	24,097	3,615	27,712	27,712	-	-	-	-	-	-	-	-	-	438,000
1a.4	Subtotal Period 1a Period-Dependent Costs	-	567	5	5	-	42	29,807	4,423	34,849	33,523	1,325	-	-	404	-	-	-	8,103	99	465,114
1a.0	TOTAL PERIOD 1a COST	-	567	5	5	-	42	35,137	5,274	41,031	38,336	2,694	-	-	404	-	-	-	8,103	99	501,004
PERIOD 1b - SAFSTOR Limited DECON Activities																					
Period 1b Direct Decommissioning Activities																					
Decontamination of Site Buildings																					
1b.1.1.1	Reactor	813	-	-	-	-	-	-	407	1,220	1,220	-	-	-	-	-	-	-	-	22,339	-
1b.1.1.2	Fuel Handling	321	-	-	-	-	-	-	161	482	482	-	-	-	-	-	-	-	-	8,003	-
1b.1.1.3	Reactor Auxiliary	369	-	-	-	-	-	-	184	553	553	-	-	-	-	-	-	-	-	10,511	-
1b.1.1	Totals	1,503	-	-	-	-	-	-	752	2,255	2,255	-	-	-	-	-	-	-	-	40,852	-
1b.1	Subtotal Period 1b Activity Costs	1,503	-	-	-	-	-	-	752	2,255	2,255	-	-	-	-	-	-	-	-	40,852	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
1b.3.2	Process liquid waste	147	-	52	318	-	750	-	314	1,581	1,581	-	-	-	-	1,011	-	-	127,380	199	-
1b.3.3	Small tool allowance	-	25	-	-	-	-	-	4	29	29	-	-	-	-	-	-	-	-	-	-
1b.3.4	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
1b.3.5	Fixed Overhead	-	-	-	-	-	-	92	14	106	106	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Collateral Costs	849	25	52	318	-	750	95	437	2,527	2,527	-	-	-	-	1,011	-	-	127,380	199	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	571	-	-	-	-	-	-	143	713	713	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	3	0	4	4	-	-	-	-	-	-	-	-	-	-
1b.4.3	Property taxes	-	-	-	-	-	-	330	33	363	363	-	-	-	-	-	-	-	-	-	-
1b.4.4	Health physics supplies	-	195	-	-	-	-	-	49	244	244	-	-	-	-	-	-	-	-	-	-
1b.4.5	Heavy equipment rental	-	83	-	-	-	-	-	12	95	95	-	-	-	-	-	-	-	-	-	-
1b.4.6	Disposal of DAW generated	-	-	7	7	-	58	-	16	88	88	-	-	-	554	-	-	-	11,105	136	-
1b.4.7	Plant energy budget	-	-	-	-	-	-	190	28	218	218	-	-	-	-	-	-	-	-	-	-
1b.4.8	NRC Fees	-	-	-	-	-	-	67	7	74	74	-	-	-	-	-	-	-	-	-	-
1b.4.9	Emergency Planning Fees	-	-	-	-	-	-	31	3	35	-	35	-	-	-	-	-	-	-	-	-
1b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	251	38	289	-	289	-	-	-	-	-	-	-	-	-
1b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1b.4.12	NEI Fees	-	-	-	-	-	-	33	3	36	36	-	-	-	-	-	-	-	-	-	-
1b.4.13	Security Staff Cost	-	-	-	-	-	-	136	20	157	157	-	-	-	-	-	-	-	-	-	6,834
1b.4.14	Utility Staff Cost	-	-	-	-	-	-	6,074	911	6,985	6,985	-	-	-	-	-	-	-	-	-	110,400
1b.4	Subtotal Period 1b Period-Dependent Costs	571	277	7	7	-	58	7,125	1,265	9,310	8,976	334	-	-	554	-	-	-	11,105	136	117,234
1b.0	TOTAL PERIOD 1b COST	2,924	302	58	325	-	808	7,220	2,454	14,092	13,758	334	-	-	554	1,011	-	-	138,485	41,187	117,234
PERIOD 1c - Preparations for SAFSTOR Dormancy																					
Period 1c Direct Decommissioning Activities																					
1c.1.1	Prepare support equipment for storage	-	375	-	-	-	-	-	56	431	431	-	-	-	-	-	-	-	-	3,000	-
1c.1.2	Install containment pressure equal. lines	-	29	-	-	-	-	-	4	33	33	-	-	-	-	-	-	-	-	700	-
1c.1.3	Interim survey prior to dormancy	-	-	-	-	-	-	733	220	953	953	-	-	-	-	-	-	-	-	15,753	-
1c.1.4	Secure building accesses									a											
1c.1.5	Prepare & submit interim report	-	-	-	-	-	-	56	8	64	64	-	-	-	-	-	-	-	-	-	583
1c.1	Subtotal Period 1c Activity Costs	-	403	-	-	-	-	789	289	1,481	1,481	-	-	-	-	-	-	-	-	19,453	583

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1c Additional Costs																					
1c.2.1	Spent Fuel Pool Isolation	-	-	-	-	-	-	8,358	1,254	9,612	9,612	-	-	-	-	-	-	-	-	-	-
1c.2.2	Mixed/Hazardous Waste	-	-	376	148	4,204	-	-	690	5,418	5,418	-	-	27,017	-	-	-	-	1,397,259	5,601	-
1c.2	Subtotal Period 1c Additional Costs	-	-	376	148	4,204	-	8,358	1,944	15,030	15,030	-	-	27,017	-	-	-	-	1,397,259	5,601	-
Period 1c Collateral Costs																					
1c.3.1	Process liquid waste	179	-	63	388	-	902	-	380	1,912	1,912	-	-	-	-	1,233	-	-	155,365	242	-
1c.3.2	Small tool allowance	-	3	-	-	-	-	-	0	3	3	-	-	-	-	-	-	-	-	-	-
1c.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
1c.3.4	Fixed Overhead	-	-	-	-	-	-	93	14	107	107	-	-	-	-	-	-	-	-	-	-
1c.3	Subtotal Period 1c Collateral Costs	179	3	63	388	-	902	96	394	2,025	2,025	-	-	-	-	1,233	-	-	155,365	242	-
Period 1c Period-Dependent Costs																					
1c.4.1	Insurance	-	-	-	-	-	-	3	0	4	4	-	-	-	-	-	-	-	-	-	-
1c.4.2	Property taxes	-	-	-	-	-	-	333	33	367	367	-	-	-	-	-	-	-	-	-	-
1c.4.3	Health physics supplies	-	144	-	-	-	-	-	36	180	180	-	-	-	-	-	-	-	-	-	-
1c.4.4	Heavy equipment rental	-	83	-	-	-	-	-	13	96	96	-	-	-	-	-	-	-	-	-	-
1c.4.5	Disposal of DAW generated	-	-	1	1	-	11	-	3	16	16	-	-	-	103	-	-	-	2,065	25	-
1c.4.6	Plant energy budget	-	-	-	-	-	-	192	29	221	221	-	-	-	-	-	-	-	-	-	-
1c.4.7	NRC Fees	-	-	-	-	-	-	68	7	74	74	-	-	-	-	-	-	-	-	-	-
1c.4.8	Emergency Planning Fees	-	-	-	-	-	-	32	3	35	-	35	-	-	-	-	-	-	-	-	-
1c.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	254	38	292	-	292	-	-	-	-	-	-	-	-	-
1c.4.10	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1c.4.11	NEI Fees	-	-	-	-	-	-	33	3	37	37	-	-	-	-	-	-	-	-	-	-
1c.4.12	Security Staff Cost	-	-	-	-	-	-	138	21	159	159	-	-	-	-	-	-	-	-	-	6,909
1c.4.13	Utility Staff Cost	-	-	-	-	-	-	6,140	921	7,061	7,061	-	-	-	-	-	-	-	-	-	111,800
1c.4	Subtotal Period 1c Period-Dependent Costs	-	227	1	1	-	11	7,202	1,108	8,552	8,214	338	-	-	103	-	-	-	2,065	25	118,509
1c.0	TOTAL PERIOD 1c COST	179	633	440	538	4,204	913	16,445	3,735	27,087	26,750	338	-	27,017	103	1,233	-	-	1,554,689	25,322	119,092
PERIOD 1 TOTALS		3,103	1,503	504	888	4,204	1,763	58,802	11,464	82,210	78,844	3,366	-	27,017	1,082	2,243	-	-	1,701,277	66,608	737,330
PERIOD 2a - SAFSTOR Dormancy with Wet Spent Fuel Storage																					
Period 2a Direct Decommissioning Activities																					
2a.1.1	Quarterly Inspection									a											
2a.1.2	Semi-annual environmental survey									a											
2a.1.3	Prepare reports									a											
2a.1.4	Bituminous roof replacement	-	-	-	-	-	-	2	0	3	3	-	-	-	-	-	-	-	-	-	-
2a.1.5	Maintenance supplies	-	-	-	-	-	-	503	126	629	629	-	-	-	-	-	-	-	-	-	-
2a.1	Subtotal Period 2a Activity Costs	-	-	-	-	-	-	505	126	631	631	-	-	-	-	-	-	-	-	-	-
Period 2a Collateral Costs																					
2a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	24,717	3,708	28,424	-	28,424	-	-	-	-	-	-	-	-	-
2a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
2a.3.3	Fixed Overhead	-	-	-	-	-	-	292	44	336	336	-	-	-	-	-	-	-	-	-	-
2a.3	Subtotal Period 2a Collateral Costs	-	-	-	-	-	-	25,012	3,752	28,763	339	28,424	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																					
2a.4.1	Insurance	-	-	-	-	-	-	35	3	38	22	16	-	-	-	-	-	-	-	-	-
2a.4.2	Property taxes	-	-	-	-	-	-	2,414	241	2,655	2,199	457	-	-	-	-	-	-	-	-	-
2a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
2a.4.4	Disposal of DAW generated	-	-	20	21	-	168	-	47	256	256	-	-	-	1,617	-	-	-	32,412	397	-
2a.4.5	Plant energy budget	-	-	-	-	-	-	2,260	339	2,599	347	2,253	-	-	-	-	-	-	-	-	-
2a.4.6	NRC Fees	-	-	-	-	-	-	936	94	1,030	1,030	-	-	-	-	-	-	-	-	-	-
2a.4.7	Emergency Planning Fees	-	-	-	-	-	-	500	50	550	-	550	-	-	-	-	-	-	-	-	-
2a.4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	3,986	598	4,584	-	4,584	-	-	-	-	-	-	-	-	-
2a.4.9	ISFSI Operating Costs	-	-	-	-	-	-	146	22	168	-	168	-	-	-	-	-	-	-	-	-
2a.4.10	NEI Fees	-	-	-	-	-	-	524	52	576	-	576	-	-	-	-	-	-	-	-	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 2a Period-Dependent Costs (continued)																					
2a.4.11	Security Staff Cost	-	-	-	-	-	-	1,956	293	2,249	239	2,010	-	-	-	-	-	-	-	-	98,029
2a.4.12	Utility Staff Cost	-	-	-	-	-	-	3,536	530	4,067	1,273	2,794	-	-	-	-	-	-	-	-	79,257
2a.4	Subtotal Period 2a Period-Dependent Costs	-	239	20	21	-	168	16,293	2,330	19,072	5,664	13,408	-	-	1,617	-	-	-	32,412	397	177,286
2a.0	TOTAL PERIOD 2a COST	-	239	20	21	-	168	41,810	6,208	48,466	6,634	41,832	-	-	1,617	-	-	-	32,412	397	177,286
PERIOD 2b - SAFSTOR Dormancy with Dry Spent Fuel Storage																					
Period 2b Direct Decommissioning Activities																					
2b.1.1	Quarterly Inspection									a											
2b.1.2	Semi-annual environmental survey									a											
2b.1.3	Prepare reports									a											
2b.1.4	Bituminous roof replacement	-	-	-	-	-	-	12	2	13	13	-	-	-	-	-	-	-	-	-	-
2b.1.5	Maintenance supplies	-	-	-	-	-	-	2,432	608	3,040	3,040	-	-	-	-	-	-	-	-	-	-
2b.1	Subtotal Period 2b Activity Costs	-	-	-	-	-	-	2,443	610	3,053	3,053	-	-	-	-	-	-	-	-	-	-
Period 2b Collateral Costs																					
2b.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	13,528	2,029	15,557	-	15,557	-	-	-	-	-	-	-	-	-
2b.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	15	2	17	17	-	-	-	-	-	-	-	-	-	-
2b.3.3	Fixed Overhead	-	-	-	-	-	-	1,411	212	1,623	1,623	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	-	-	-	-	-	-	14,955	2,242	17,197	1,640	15,557	-	-	-	-	-	-	-	-	-
Period 2b Period-Dependent Costs																					
2b.4.1	Insurance	-	-		-	-	-	96	10	106	105	0	-	-	-	-	-	-	-	-	-
2b.4.2	Property taxes	-	-	-	-	-	-	9,666	967	10,633	10,633	-	-	-	-	-	-	-	-	-	-
2b.4.3	Health physics supplies	-	1,157	-	-	-	-	-	289	1,447	1,447	-	-	-	-	-	-	-	-	-	-
2b.4.4	Disposal of DAW generated	-	-	98	102	-	812	-	228	1,240	1,240	-	-	-	7,822	-	-	-	156,754	1,921	-
2b.4.5	Plant energy budget	-	-	-	-	-	-	1,457	219	1,676	1,676	-	-	-	-	-	-	-	-	-	-
2b.4.6	NRC Fees	-	-	-	-	-	-	4,528	453	4,980	4,980	-	-	-	-	-	-	-	-	-	-
2b.4.7	Emergency Planning Fees	-	-	-	-	-	-	976	98	1,074	-	1,074	-	-	-	-	-	-	-	-	-
2b.4.8	ISFSI Operating Costs	-	-	-	-	-	-	707	106	813	-	813	-	-	-	-	-	-	-	-	-
2b.4.9	Security Staff Cost	-	-	-	-	-	-	3,363	504	3,868	1,157	2,710	-	-	-	-	-	-	-	-	168,657
2b.4.10	Utility Staff Cost	-	-	-	-	-	-	19,368	2,905	22,274	6,155	16,119	-	-	-	-	-	-	-	-	367,575
2b.4	Subtotal Period 2b Period-Dependent Costs	-	1,157	98	102	-	812	40,162	5,778	48,109	27,393	20,716	-	-	7,822	-	-	-	156,754	1,921	536,232
2b.0	TOTAL PERIOD 2b COST	-	1,157	98	102	-	812	57,560	8,631	68,360	32,086	36,273	-	-	7,822	-	-	-	156,754	1,921	536,232
PERIOD 2c - SAFSTOR Dormancy without Spent Fuel Storage																					
Period 2c Direct Decommissioning Activities																					
2c.1.1	Quarterly Inspection									a											
2c.1.2	Semi-annual environmental survey									a											
2c.1.3	Prepare reports									a											
2c.1.4	Bituminous roof replacement	-	-	-	-	-	-	18	3	20	20	-	-	-	-	-	-	-	-	-	-
2c.1.5	Maintenance supplies	-	-	-	-	-	-	3,665	916	4,581	4,581	-	-	-	-	-	-	-	-	-	-
2c.1	Subtotal Period 2c Activity Costs	-	-	-	-	-	-	3,683	919	4,601	4,601	-	-	-	-	-	-	-	-	-	-
Period 2c Collateral Costs																					
2c.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	23	2	25	25	-	-	-	-	-	-	-	-	-	-
2c.3.2	Fixed Overhead	-	-	-	-	-	-	2,127	319	2,446	2,446	-	-	-	-	-	-	-	-	-	-
2c.3	Subtotal Period 2c Collateral Costs	-	-	-	-	-	-	2,150	321	2,471	2,471	-	-	-	-	-	-	-	-	-	-
Period 2c Period-Dependent Costs																					
2c.4.1	Insurance	-	-	-	-	-	-	144	14	159	159	-	-	-	-	-	-	-	-	-	-
2c.4.2	Property taxes	-	-	-	-	-	-	14,568	1,457	16,025	16,025	-	-	-	-	-	-	-	-	-	-
2c.4.3	Health physics supplies	-	1,744	-	-	-	-	-	436	2,180	2,180	-	-	-	-	-	-	-	-	-	-
2c.4.4	Disposal of DAW generated	-	-	148	154	-	1,224	-	344	1,869	1,869	-	-	-	11,789	-	-	-	236,252	2,895	-
2c.4.5	Plant energy budget	-	-	-	-	-	-	2,197	329	2,526	2,526	-	-	-	-	-	-	-	-	-	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 2c Period-Dependent Costs (continued)																					
2c.4.6	NRC Fees	-	-	-	-	-	-	6,824	682	7,506	7,506	-	-	-	-	-	-	-	-	-	-
2c.4.7	Security Staff Cost	-	-	-	-	-	-	1,517	228	1,744	1,744	-	-	-	-	-	-	-	-	-	76,014
2c.4.8	Utility Staff Cost	-	-	-	-	-	-	8,067	1,210	9,277	9,277	-	-	-	-	-	-	-	-	-	182,434
2c.4	Subtotal Period 2c Period-Dependent Costs	-	1,744	148	154	-	1,224	33,316	4,700	41,286	41,286	-	-	-	11,789	-	-	-	236,252	2,895	258,449
2c.0	TOTAL PERIOD 2c COST	-	1,744	148	154	-	1,224	39,149	5,941	48,359	48,359	-	-	-	11,789	-	-	-	236,252	2,895	258,449
PERIOD 2 TOTALS		-	3,141	266	277	-	2,204	138,518	20,779	165,185	87,079	78,105	-	-	21,229	-	-	-	425,419	5,212	971,967
PERIOD 3a - Reactivate Site Following SAFSTOR Dormancy																					
Period 3a Direct Decommissioning Activities																					
3a.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
3a.1.2	Review plant dwgs & specs.	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3a.1.3	Perform detailed rad survey									a											
3a.1.4	End product description	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3a.1.5	Detailed by-product inventory	-	-	-	-	-	-	124	19	143	143	-	-	-	-	-	-	-	-	-	1,300
3a.1.6	Define major work sequence	-	-	-	-	-	-	717	108	824	824	-	-	-	-	-	-	-	-	-	7,500
3a.1.7	Perform SER and EA	-	-	-	-	-	-	296	44	341	341	-	-	-	-	-	-	-	-	-	3,100
3a.1.8	Perform Site-Specific Cost Study	-	-	-	-	-	-	478	72	549	549	-	-	-	-	-	-	-	-	-	5,000
3a.1.9	Prepare/submit License Termination Plan	-	-	-	-	-	-	391	59	450	450	-	-	-	-	-	-	-	-	-	4,098
3a.1.10	Receive NRC approval of termination plan									a											
Activity Specifications																					
3a.1.11.1	Re-activate plant & temporary facilities	-	-	-	-	-	-	704	106	810	729	-	81	-	-	-	-	-	-	-	7,370
3a.1.11.2	Plant systems	-	-	-	-	-	-	398	60	458	412	-	46	-	-	-	-	-	-	-	4,167
3a.1.11.3	Reactor internals	-	-	-	-	-	-	678	102	780	780	-	-	-	-	-	-	-	-	-	7,100
3a.1.11.4	Reactor vessel	-	-	-	-	-	-	621	93	714	714	-	-	-	-	-	-	-	-	-	6,500
3a.1.11.5	Biological shield	-	-	-	-	-	-	48	7	55	55	-	-	-	-	-	-	-	-	-	500
3a.1.11.6	Steam generators	-	-	-	-	-	-	298	45	343	343	-	-	-	-	-	-	-	-	-	3,120
3a.1.11.7	Reinforced concrete	-	-	-	-	-	-	153	23	176	88	-	88	-	-	-	-	-	-	-	1,600
3a.1.11.8	Main Turbine	-	-	-	-	-	-	38	6	44	-	-	44	-	-	-	-	-	-	-	400
3a.1.11.9	Main Condensers	-	-	-	-	-	-	38	6	44	-	-	44	-	-	-	-	-	-	-	400
3a.1.11.10	Plant structures & buildings	-	-	-	-	-	-	298	45	343	171	-	171	-	-	-	-	-	-	-	3,120
3a.1.11.11	Waste management	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3a.1.11.12	Facility & site closeout	-	-	-	-	-	-	86	13	99	49	-	49	-	-	-	-	-	-	-	900
3a.1.11	Total	-	-	-	-	-	-	3,801	570	4,371	3,848	-	523	-	-	-	-	-	-	-	39,777
Planning & Site Preparations																					
3a.1.12	Prepare dismantling sequence	-	-	-	-	-	-	229	34	264	264	-	-	-	-	-	-	-	-	-	2,400
3a.1.13	Plant prep. & temp. svces	-	-	-	-	-	-	2,419	363	2,782	2,782	-	-	-	-	-	-	-	-	-	-
3a.1.14	Design water clean-up system	-	-	-	-	-	-	134	20	154	154	-	-	-	-	-	-	-	-	-	1,400
3a.1.15	Rigging/Cont. Cntrl Envlps/tooling/etc.	-	-	-	-	-	-	2,048	307	2,355	2,355	-	-	-	-	-	-	-	-	-	-
3a.1.16	Procure casks/liners & containers	-	-	-	-	-	-	118	18	135	135	-	-	-	-	-	-	-	-	-	1,230
3a.1	Subtotal Period 3a Activity Costs	-	-	-	-	-	-	11,414	1,712	13,126	12,603	-	523	-	-	-	-	-	-	-	72,703
Period 3a Collateral Costs																					
3a.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
3a.3.2	Fixed Overhead	-	-	-	-	-	-	365	55	420	420	-	-	-	-	-	-	-	-	-	-
3a.3	Subtotal Period 3a Collateral Costs	-	-	-	-	-	-	366	55	421	421	-	-	-	-	-	-	-	-	-	-
Period 3a Period-Dependent Costs																					
3a.4.1	Insurance	-	-	-	-	-	-	5	0	5	5	-	-	-	-	-	-	-	-	-	-
3a.4.2	Property taxes	-	-	-	-	-	-	500	50	550	550	-	-	-	-	-	-	-	-	-	-
3a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
3a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
3a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 3a Period-Dependent Costs (continued)																					
3a.4.6	Plant energy budget	-	-	-	-	-	-	565	85	650	650	-	-	-	-	-	-	-	-	-	-
3a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
3a.4.8	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-
3a.4.9	Security Staff Cost	-	-	-	-	-	-	323	48	371	371	-	-	-	-	-	-	-	-	-	16,164
3a.4.10	Utility Staff Cost	-	-	-	-	-	-	15,182	2,277	17,459	17,459	-	-	-	-	-	-	-	-	-	264,364
3a.4	Subtotal Period 3a Period-Dependent Costs	-	567	5	5	-	42	16,970	2,621	20,211	20,211	-	-	-	404	-	-	-	8,103	99	280,529
3a.0	TOTAL PERIOD 3a COST	-	567	5	5	-	42	28,750	4,388	33,758	33,234	-	523	-	404	-	-	-	8,103	99	353,231
PERIOD 3b - Decommissioning Preparations																					
Period 3b Direct Decommissioning Activities																					
Detailed Work Procedures																					
3b.1.1.1	Plant systems	-	-	-	-	-	-	452	68	520	468	-	52	-	-	-	-	-	-	-	4,733
3b.1.1.2	Reactor internals	-	-	-	-	-	-	239	36	275	275	-	-	-	-	-	-	-	-	-	2,500
3b.1.1.3	Remaining buildings	-	-	-	-	-	-	129	19	148	37	-	111	-	-	-	-	-	-	-	1,350
3b.1.1.4	CRD cooling assembly	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.5	CRD housings & ICI tubes	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.6	Incore instrumentation	-	-	-	-	-	-	96	14	110	110	-	-	-	-	-	-	-	-	-	1,000
3b.1.1.7	Reactor vessel	-	-	-	-	-	-	347	52	399	399	-	-	-	-	-	-	-	-	-	3,630
3b.1.1.8	Facility closeout	-	-	-	-	-	-	115	17	132	66	-	66	-	-	-	-	-	-	-	1,200
3b.1.1.9	Missile shields	-	-	-	-	-	-	43	6	49	49	-	-	-	-	-	-	-	-	-	450
3b.1.1.10	Biological shield	-	-	-	-	-	-	115	17	132	132	-	-	-	-	-	-	-	-	-	1,200
3b.1.1.11	Steam generators	-	-	-	-	-	-	440	66	506	506	-	-	-	-	-	-	-	-	-	4,600
3b.1.1.12	Reinforced concrete	-	-	-	-	-	-	96	14	110	55	-	55	-	-	-	-	-	-	-	1,000
3b.1.1.13	Main Turbine	-	-	-	-	-	-	149	22	171	-	-	171	-	-	-	-	-	-	-	1,560
3b.1.1.14	Main Condensers	-	-	-	-	-	-	149	22	171	-	-	171	-	-	-	-	-	-	-	1,560
3b.1.1.15	Auxiliary building	-	-	-	-	-	-	261	39	300	270	-	30	-	-	-	-	-	-	-	2,730
3b.1.1.16	Reactor building	-	-	-	-	-	-	261	39	300	270	-	30	-	-	-	-	-	-	-	2,730
3b.1.1	Total	-	-	-	-	-	-	3,081	462	3,543	2,856	-	687	-	-	-	-	-	-	-	32,243
3b.1	Subtotal Period 3b Activity Costs	-	-	-	-	-	-	3,081	462	3,543	2,856	-	687	-	-	-	-	-	-	-	32,243
Period 3b Additional Costs																					
3b.2.1	Asbestos Removal Program	-	611	1	159	-	190	-	224	1,185	1,185	-	-	-	14,105	-	-	-	116,795	11,758	-
3b.2.2	Site Characterization Survey	-	-	-	-	-	-	1,269	381	1,650	1,650	-	-	-	-	-	-	-	-	-	-
3b.2	Subtotal Period 3b Additional Costs	-	611	1	159	-	190	1,269	605	2,835	2,835	-	-	-	14,105	-	-	-	116,795	11,758	-
Period 3b Collateral Costs																					
3b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
3b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
3b.3.3	Small tool allowance	-	8	-	-	-	-	-	1	10	10	-	-	-	-	-	-	-	-	-	-
3b.3.4	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
3b.3.5	Florida LLRW Inspection Fee	-	-	-	-	-	-	28	3	31	31	-	-	-	-	-	-	-	-	-	-
3b.3.6	Fixed Overhead	-	-	-	-	-	-	185	28	213	213	-	-	-	-	-	-	-	-	-	-
3b.3	Subtotal Period 3b Collateral Costs	702	965	-	-	-	-	1,096	413	3,176	3,176	-	-	-	-	-	-	-	-	-	-
Period 3b Period-Dependent Costs																					
3b.4.1	Decon supplies	21	-	-	-	-	-	-	5	26	26	-	-	-	-	-	-	-	-	-	-
3b.4.2	Insurance	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
3b.4.3	Property taxes	-	-	-	-	-	-	253	25	279	279	-	-	-	-	-	-	-	-	-	-
3b.4.4	Health physics supplies	-	160	-	-	-	-	-	40	200	200	-	-	-	-	-	-	-	-	-	-
3b.4.5	Heavy equipment rental	-	166	-	-	-	-	-	25	191	191	-	-	-	-	-	-	-	-	-	-
3b.4.6	Disposal of DAW generated	-	-	3	3	-	21	-	6	32	32	-	-	-	205	-	-	-	4,107	50	-
3b.4.7	Plant energy budget	-	-	-	-	-	-	286	43	329	329	-	-	-	-	-	-	-	-	-	-
3b.4.8	NRC Fees	-	-	-	-	-	-	134	13	148	148	-	-	-	-	-	-	-	-	-	-
3b.4.9	NEI Fees	-	-	-	-	-	-	66	7	73	73	-	-	-	-	-	-	-	-	-	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 3b Period-Dependent Costs (continued)																					
3b.4.10	Security Staff Cost	-	-	-	-	-	-	163	25	188	188	-	-	-	-	-	-	-	-	-	8,193
3b.4.11	DOC Staff Cost	-	-	-	-	-	-	4,310	647	4,957	4,957	-	-	-	-	-	-	-	-	-	64,486
3b.4.12	Utility Staff Cost	-	-	-	-	-	-	7,862	1,179	9,041	9,041	-	-	-	-	-	-	-	-	-	137,164
3b.4	Subtotal Period 3b Period-Dependent Costs	21	326	3	3	-	21	13,078	2,015	15,467	15,467	-	-	-	205	-	-	-	4,107	50	209,843
3b.0	TOTAL PERIOD 3b COST	723	1,902	3	161	-	212	18,525	3,496	25,022	24,335	-	687	-	14,310	-	-	-	120,902	11,806	242,086
PERIOD 3 TOTALS		723	2,469	8	166	-	254	47,275	7,884	58,779	57,569	-	1,211	-	14,714	-	-	-	129,005	11,906	595,317
PERIOD 4a - Large Component Removal																					
Period 4a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
4a.1.1.1	Reactor Coolant Piping	9	35	5	8	65	89	-	47	256	256	-	-	233	233	-	-	-	54,101	1,227	-
4a.1.1.2	Pressurizer Relief Tank	1	4	1	1	11	14	-	7	39	39	-	-	39	39	-	-	-	8,699	142	-
4a.1.1.3	Reactor Coolant Pumps & Motors	22	57	36	218	831	904	-	412	2,482	2,482	-	-	3,406	2,948	-	-	-	620,400	2,563	-
4a.1.1.4	Pressurizer	6	41	429	482	-	570	-	271	1,797	1,797	-	-	-	2,134	-	-	-	197,650	1,801	-
4a.1.1.5	Steam Generators	33	2,061	1,610	2,400	2,161	2,822	-	2,082	13,168	13,168	-	-	14,285	10,568	-	-	-	2,458,344	12,559	-
4a.1.1.6	CRDMs/ICIs/Service Structure Removal	24	74	116	61	37	206	-	108	626	626	-	-	401	3,261	-	-	-	80,352	2,519	-
4a.1.1.7	Reactor Vessel Internals	36	1,462	3,070	515	-	2,376	128	3,218	10,803	10,803	-	-	-	1,710	626	365	-	283,734	16,938	810
4a.1.1.8	Vessel & Internals GTCC Disposal	-	-	-	-	-	10,802	-	1,620	12,423	12,423	-	-	-	-	-	-	560	114,316	-	-
4a.1.1.9	Reactor Vessel	-	3,164	698	405	-	5,148	128	5,242	14,785	14,785	-	-	-	6,787	2,955	-	-	997,240	16,938	810
4a.1.1	Totals	131	6,897	5,963	4,091	3,105	22,929	255	13,007	56,378	56,378	-	-	18,344	27,660	3,581	365	560	4,794,835	54,686	1,619
Removal of Major Equipment																					
4a.1.2	Main Turbine/Generator	-	199	75	26	623	-	-	155	1,078	1,078	-	-	2,934	-	-	-	-	249,382	5,383	-
4a.1.3	Main Condensers	-	727	55	26	637	-	-	287	1,732	1,732	-	-	5,664	-	-	-	-	254,891	20,075	-
Cascading Costs from Clean Building Demolition																					
4a.1.4.1	Reactor	-	1,056	-	-	-	-	-	158	1,214	1,214	-	-	-	-	-	-	-	-	20,764	-
4a.1.4.2	Fuel Handling	-	91	-	-	-	-	-	14	104	104	-	-	-	-	-	-	-	-	1,680	-
4a.1.4.3	Reactor Auxiliary	-	160	-	-	-	-	-	24	184	184	-	-	-	-	-	-	-	-	2,864	-
4a.1.4	Totals	-	1,306	-	-	-	-	-	196	1,502	1,502	-	-	-	-	-	-	-	-	25,308	-
Disposal of Plant Systems																					
4a.1.5.1	Air Evacuation	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	171	-
4a.1.5.2	Air Evacuation - Insulated	-	22	-	-	-	-	-	3	26	-	-	26	-	-	-	-	-	-	701	-
4a.1.5.3	Auxiliary Steam - Insulated	-	18	-	-	-	-	-	3	21	-	-	21	-	-	-	-	-	-	577	-
4a.1.5.4	Chemical & Volume Control	-	73	5	10	98	71	-	53	309	309	-	-	960	306	-	-	-	61,462	1,953	-
4a.1.5.5	Chemical & Volume Control - Insulated	-	289	17	32	35	335	-	167	874	874	-	-	342	1,190	-	-	-	120,451	7,278	-
4a.1.5.6	Chemical Feed	-	2	-	-	-	-	-	0	2	-	-	2	-	-	-	-	-	-	66	-
4a.1.5.7	Chemical Feed - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	28	-
4a.1.5.8	Circulating & Intake Cooling Water	-	189	-	-	-	-	-	28	218	-	-	218	-	-	-	-	-	-	5,958	-
4a.1.5.9	Component Cooling	-	59	-	-	-	-	-	9	67	-	-	67	-	-	-	-	-	-	1,825	-
4a.1.5.10	Component Cooling - RCA	-	207	8	35	847	-	-	185	1,282	1,282	-	-	8,345	-	-	-	-	338,876	5,456	-
4a.1.5.11	Condensate	-	123	-	-	-	-	-	18	142	-	-	142	-	-	-	-	-	-	3,749	-
4a.1.5.12	Condensate - Insulated	-	69	-	-	-	-	-	10	79	-	-	79	-	-	-	-	-	-	2,214	-
4a.1.5.13	Condensate Polish Filter Demin	-	19	-	-	-	-	-	3	22	-	-	22	-	-	-	-	-	-	589	-
4a.1.5.14	Condensate Polish Filter Demin - Ins	-	55	-	-	-	-	-	8	64	-	-	64	-	-	-	-	-	-	1,778	-
4a.1.5.15	Condensate Recovery	-	3	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	86	-
4a.1.5.16	Condensate Recovery - Insulated	-	0	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-	12	-
4a.1.5.17	Condensate Recovery - Insulated - RCA	-	0	-	-	0	-	-	0	1	1	-	-	5	-	-	-	-	186	11	-
4a.1.5.18	Condensate Recovery - RCA	-	8	0	1	17	-	-	5	30	30	-	-	166	-	-	-	-	6,761	207	-
4a.1.5.19	Condenser Tube Cleaning	-	27	-	-	-	-	-	4	31	-	-	31	-	-	-	-	-	-	838	-
4a.1.5.20	Demineralized Makeup Water	-	12	-	-	-	-	-	2	14	-	-	14	-	-	-	-	-	-	370	-
4a.1.5.21	Demineralized Makeup Water - RCA	-	9	0	0	11	-	-	4	24	24	-	-	104	-	-	-	-	4,222	205	-
4a.1.5.22	Domestic/Makeup/Service Water	-	140	-	-	-	-	-	21	161	-	-	161	-	-	-	-	-	-	4,067	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
4a.1.5.23	Domestic/Makeup/Service Water - RCA	-	66	1	5	114	-	-	34	221	221	-	-	1,127	-	-	-	-	45,757	1,666	-
4a.1.5.24	Domestic/Makeup/Service Water-Ins	-	3	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	93	-
4a.1.5.25	Domestic/Makeup/Service Water-Ins-RCA	-	8	0	1	13	-	-	4	25	25	-	-	124	-	-	-	-	5,052	200	-
4a.1.5.26	Electrical - Clean	-	1,557	-	-	-	-	-	233	1,790	-	-	1,790	-	-	-	-	-	-	46,406	-
4a.1.5.27	Extraction Steam	-	64	-	-	-	-	-	10	74	-	-	74	-	-	-	-	-	-	1,884	-
4a.1.5.28	Extraction Steam - Insulated	-	64	-	-	-	-	-	10	73	-	-	73	-	-	-	-	-	-	2,032	-
4a.1.5.29	Feedwater - Insulated	-	68	-	-	-	-	-	10	78	-	-	78	-	-	-	-	-	-	2,153	-
4a.1.5.30	Feedwater - Insulated - RCA	-	21	1	3	66	-	-	16	107	107	-	-	655	-	-	-	-	26,583	554	-
4a.1.5.31	Fire Protection	-	55	-	-	-	-	-	8	63	-	-	63	-	-	-	-	-	-	1,710	-
4a.1.5.32	Fire Protection - Insulated	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	163	-
4a.1.5.33	HVAC	-	56	-	-	-	-	-	8	64	-	-	64	-	-	-	-	-	-	1,846	-
4a.1.5.34	Heater Drain & Vent - Insulated	-	143	-	-	-	-	-	21	164	-	-	164	-	-	-	-	-	-	4,490	-
4a.1.5.35	Hydrogen Sampling	-	30	1	2	57	-	-	16	106	106	-	-	557	-	-	-	-	22,812	812	-
4a.1.5.36	Integrated Leak Rate Testing	-	20	0	1	31	-	-	10	62	62	-	-	307	-	-	-	-	12,482	509	-
4a.1.5.37	Main Steam - Insulated	-	148	-	-	-	-	-	22	171	-	-	171	-	-	-	-	-	-	4,624	-
4a.1.5.38	Main Steam - Insulated - RCA	-	30	1	4	100	-	-	23	159	159	-	-	985	-	-	-	-	40,015	795	-
4a.1.5.39	Misc Bulk Gas	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	440	-
4a.1.5.40	Misc Bulk Gas - RCA	-	10	-	0	10	-	-	4	24	24	-	-	96	-	-	-	-	3,887	226	-
4a.1.5.41	Miscellaneous	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	230	-
4a.1.5.42	Miscellaneous - RCA	-	7	0	2	50	-	-	10	69	69	-	-	491	-	-	-	-	19,923	186	-
4a.1.5.43	Neutralization Basin Recirculation	-	14	-	-	-	-	-	2	16	-	-	16	-	-	-	-	-	-	435	-
4a.1.5.44	Post Accident Sampling	-	11	0	1	17	-	-	5	34	34	-	-	167	-	-	-	-	6,793	309	-
4a.1.5.45	Post Accident Sampling - Insulated	-	30	0	1	13	-	-	10	53	53	-	-	126	-	-	-	-	5,101	853	-
4a.1.5.46	RCP Oil Collection	-	1	-	0	2	1	-	1	4	4	-	-	16	2	-	-	-	821	25	-
4a.1.5.47	SGBTF Blowdown - Insulated	-	78	4	8	20	75	-	43	227	227	-	-	198	266	-	-	-	31,842	1,958	-
4a.1.5.48	SGBTF HVAC	-	45	-	-	-	-	-	7	52	-	-	52	-	-	-	-	-	-	1,529	-
4a.1.5.49	SGBTF Misc - RCA	-	2	0	0	10	-	-	2	15	15	-	-	103	-	-	-	-	4,184	48	-
4a.1.5.50	SGBTF Waste Management	-	3	-	0	3	-	-	1	8	8	-	-	30	-	-	-	-	1,229	77	-
4a.1.5.51	SGBTF Waste Management - Insulated	-	30	0	1	29	-	-	12	72	72	-	-	284	-	-	-	-	11,527	730	-
4a.1.5.52	Safety Injection	-	138	12	40	645	146	-	175	1,156	1,156	-	-	6,351	537	-	-	-	304,542	3,749	-
4a.1.5.53	Safety Injection - Insulated	-	345	18	41	288	322	-	218	1,232	1,232	-	-	2,834	1,145	-	-	-	217,672	8,900	-
4a.1.5.54	Sampling	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	198	-
4a.1.5.55	Sampling - Insulated	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	188	-
4a.1.5.56	Sampling - Insulated - RCA	-	13	0	0	11	-	-	5	30	30	-	-	107	-	-	-	-	4,341	332	-
4a.1.5.57	Sampling - RCA	-	13	0	1	15	-	-	6	35	35	-	-	145	-	-	-	-	5,900	348	-
4a.1.5.58	Secondary Side Wet Layup	-	9	-	-	-	-	-	1	10	-	-	10	-	-	-	-	-	-	288	-
4a.1.5.59	Secondary Side Wet Layup - Ins	-	10	-	-	-	-	-	2	12	-	-	12	-	-	-	-	-	-	348	-
4a.1.5.60	Service & Instrument Air	-	20	-	-	-	-	-	3	23	-	-	23	-	-	-	-	-	-	617	-
4a.1.5.61	Service & Instrument Air - Ins	-	10	-	-	-	-	-	2	12	-	-	12	-	-	-	-	-	-	349	-
4a.1.5.62	Service & Instrument Air - Ins - RCA	-	47	0	2	44	-	-	19	111	111	-	-	430	-	-	-	-	17,476	1,186	-
4a.1.5.63	Service & Instrument Air - RCA	-	32	0	1	33	-	-	13	80	80	-	-	323	-	-	-	-	13,110	803	-
4a.1.5.64	Steam Gen Blowdown Cooling	-	13	-	-	-	-	-	2	14	-	-	14	-	-	-	-	-	-	372	-
4a.1.5.65	Steam Gen Blowdown Cooling - Ins - RCA	-	31	1	4	92	-	-	22	150	150	-	-	908	-	-	-	-	36,881	805	-
4a.1.5.66	Steam Gen Blowdown Cooling - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	35	-
4a.1.5.67	Steam Gen Blowdown Cooling - RCA	-	41	1	5	126	-	-	30	203	203	-	-	1,241	-	-	-	-	50,413	1,051	-
4a.1.5.68	Steam Generator Blowdown	-	23	0	1	35	-	-	11	71	71	-	-	342	-	-	-	-	13,872	641	-
4a.1.5.69	Steam Generator Blowdown - Insulated	-	43	0	2	42	-	-	17	104	104	-	-	415	-	-	-	-	16,839	1,109	-
4a.1.5.70	Turbine	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	29	-
4a.1.5.71	Turbine Cooling Water	-	43	-	-	-	-	-	6	50	-	-	50	-	-	-	-	-	-	1,308	-
4a.1.5.72	Turbine Cooling Water - Insulated	-	26	-	-	-	-	-	4	30	-	-	30	-	-	-	-	-	-	854	-
4a.1.5.73	Turbine Lube Oil & Diesel Oil	-	51	-	-	-	-	-	8	59	-	-	59	-	-	-	-	-	-	1,596	-
4a.1.5.74	Water Treatment	-	53	-	-	-	-	-	8	61	-	-	61	-	-	-	-	-	-	1,622	-
4a.1.5.75	Water Treatment - Insulated	-	30	-	-	-	-	-	5	35	-	-	35	-	-	-	-	-	-	957	-
4a.1.5	Totals	-	4,923	74	204	2,872	949	-	1,610	10,631	6,877	-	3,754	28,284	3,444	-	-	-	1,450,809	142,786	-
4a.1.6	Scaffolding in support of decommissioning	-	486	6	4	70	5	-	134	705	705	-	-	618	31	-	-	-	30,903	15,527	-
4a.1	Subtotal Period 4a Activity Costs	131	14,539	6,174	4,350	7,307	23,883	255	15,389	72,027	68,274	-	3,754	55,844	31,135	3,581	365	560	6,780,819	263,744	1,619

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes: Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 4a Collateral Costs																					
4a.3.1	Process liquid waste	4	-	4	23	-	110	-	33	175	175	-	-	-	-	75	-	-	9,446	15	-
4a.3.2	Small tool allowance	-	161	-	-	-	-	-	24	185	167	-	19	-	-	-	-	-	-	-	-
4a.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	187	19	206	206	-	-	-	-	-	-	-	-	-	-
4a.3.4	Fixed Overhead	-	-	-	-	-	-	373	56	429	429	-	-	-	-	-	-	-	-	-	-
4a.3	Subtotal Period 4a Collateral Costs	4	161	4	23	-	110	560	132	994	976	-	19	-	-	75	-	-	9,446	15	-
Period 4a Period-Dependent Costs																					
4a.4.1	Decon supplies	43	-	-	-	-	-	-	11	53	53	-	-	-	-	-	-	-	-	-	-
4a.4.2	Insurance	-	-	-	-	-	-	7	1	7	7	-	-	-	-	-	-	-	-	-	-
4a.4.3	Property taxes	-	-	-	-	-	-	511	51	562	506	-	56	-	-	-	-	-	-	-	-
4a.4.4	Health physics supplies	-	1,109	-	-	-	-	-	277	1,387	1,387	-	-	-	-	-	-	-	-	-	-
4a.4.5	Heavy equipment rental	-	1,722	-	-	-	-	-	258	1,980	1,980	-	-	-	-	-	-	-	-	-	-
4a.4.6	Disposal of DAW generated	-	-	38	39	-	313	-	88	478	478	-	-	-	3,019	-	-	-	60,491	741	-
4a.4.7	Plant energy budget	-	-	-	-	-	-	731	110	841	841	-	-	-	-	-	-	-	-	-	-
4a.4.8	NRC Fees	-	-	-	-	-	-	335	33	368	368	-	-	-	-	-	-	-	-	-	-
4a.4.9	Radwaste Processing Equipment/Services	-	-	-	-	-	-	368	55	423	423	-	-	-	-	-	-	-	-	-	-
4a.4.10	NEI Fees	-	-	-	-	-	-	134	13	147	147	-	-	-	-	-	-	-	-	-	-
4a.4.11	Security Staff Cost	-	-	-	-	-	-	1,227	184	1,411	1,411	-	-	-	-	-	-	-	-	-	61,513
4a.4.12	DOC Staff Cost	-	-	-	-	-	-	10,409	1,561	11,970	11,970	-	-	-	-	-	-	-	-	-	161,989
4a.4.13	Utility Staff Cost	-	-	-	-	-	-	15,752	2,363	18,115	18,115	-	-	-	-	-	-	-	-	-	283,075
4a.4	Subtotal Period 4a Period-Dependent Costs	43	2,831	38	39	-	313	29,473	5,006	37,742	37,606	-	56	-	3,019	-	-	-	60,491	741	506,577
4a.0	TOTAL PERIOD 4a COST	177	17,531	6,216	4,413	7,307	24,306	30,288	20,527	110,764	106,936	-	3,828	55,844	34,153	3,656	365	560	6,850,756	264,500	508,196
PERIOD 4b - Site Decontamination																					
Period 4b Direct Decommissioning Activities																					
4b.1.1	Remove spent fuel racks	342	39	86	72	-	417	-	304	1,261	1,261	-	-	-	2,559	-	-	-	255,900	1,243	-
Disposal of Plant Systems																					
4b.1.2.1	Containmnt Spray & Refueling Water	-	311	41	100	730	778	-	401	2,361	2,361	-	-	7,188	3,019	-	-	-	539,770	8,578	-
4b.1.2.2	Containmnt Spray & Refueling Water - Ins	-	122	11	30	156	257	-	124	700	700	-	-	1,534	914	-	-	-	144,229	3,351	-
4b.1.2.3	Electrical - Contaminated	-	173	2	8	177	13	-	74	448	448	-	-	1,744	46	-	-	-	74,982	4,628	-
4b.1.2.4	Electrical - Decontaminated	-	1,164	20	76	1,582	117	-	571	3,530	3,530	-	-	15,582	415	-	-	-	670,001	30,616	-
4b.1.2.5	Emergency Diesel Generator	-	52	-	-	-	-	-	8	60	-	-	60	-	-	-	-	-	-	1,662	-
4b.1.2.6	Emergency Diesel Generator - Insulated	-	4	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	150	-
4b.1.2.7	Fire Protection - Insulated - RCA	-	1	-	0	3	-	-	1	5	5	-	-	26	-	-	-	-	1,069	37	-
4b.1.2.8	Fire Protection - RCA	-	17	0	1	34	-	-	10	62	62	-	-	336	-	-	-	-	13,640	447	-
4b.1.2.9	Fuel Pool	-	59	5	12	41	112	-	51	279	279	-	-	406	399	-	-	-	52,028	1,582	-
4b.1.2.10	Fuel Pool - Insulated	-	31	2	4	7	39	-	19	102	102	-	-	66	140	-	-	-	15,188	797	-
4b.1.2.11	HVAC - Contaminated	-	1,219	23	100	2,438	-	-	688	4,467	4,467	-	-	24,009	-	-	-	-	975,013	28,417	-
4b.1.2.12	Primary Water	-	112	8	20	184	133	-	93	550	550	-	-	1,815	573	-	-	-	116,207	3,056	-
4b.1.2.13	Primary Water - Insulated	-	2	-	0	0	2	-	1	5	5	-	-	3	7	-	-	-	699	48	-
4b.1.2.14	Radiation Monitoring	-	15	-	0	7	-	-	5	27	27	-	-	68	-	-	-	-	2,765	410	-
4b.1.2.15	Reactor Coolant - Insulated	-	53	3	5	16	47	-	28	152	152	-	-	158	168	-	-	-	21,434	1,453	-
4b.1.2.16	Refueling Equipment	-	84	3	9	105	49	-	51	300	300	-	-	1,033	174	-	-	-	57,587	2,348	-
4b.1.2.17	Secondary Side Wet Layup - Ins - RCA	-	9	-	0	10	-	-	4	23	23	-	-	98	-	-	-	-	3,971	204	-
4b.1.2.18	Secondary Side Wet Layup - RCA	-	9	0	1	19	-	-	5	34	34	-	-	183	-	-	-	-	7,452	221	-
4b.1.2.19	Waste Management	-	440	29	65	577	457	-	323	1,891	1,891	-	-	5,687	1,932	-	-	-	376,435	11,683	-
4b.1.2.20	Waste Management - Insulated	-	554	35	62	68	659	-	326	1,705	1,705	-	-	673	2,343	-	-	-	237,245	13,912	-
4b.1.2	Totals	-	4,431	180	494	6,153	2,664	-	2,783	16,705	16,640	-	65	60,608	10,129	-	-	-	3,309,713	113,579	-
4b.1.3	Scaffolding in support of decommissioning	-	729	10	6	104	8	-	202	1,058	1,058	-	-	927	46	-	-	-	46,355	23,290	-
Decontamination of Site Buildings																					
4b.1.4.1	Reactor	747	624	85	253	320	1,855	-	1,088	4,971	4,971	-	-	3,150	8,528	-	-	-	937,234	35,295	-
4b.1.4.2	Fuel Handling	290	295	4	12	169	32	-	254	1,057	1,057	-	-	1,664	206	-	-	-	87,392	15,183	-
4b.1.4.3	Primary Water Tank Foundation - Contam	0	2	2	8	-	41	-	12	66	66	-	-	-	252	-	-	-	25,176	56	-

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Decontamination of Site Buildings (continued)																					
4b.1.4.4	Reactor Auxiliary	343	121	13	43	101	204	-	276	1,101	1,101	-	-	995	1,268	-	-	-	165,377	12,304	-
4b.1.4.5	Refueling Water Storage Tank - Contam	0	4	5	17	-	88	-	26	140	140	-	-	-	537	-	-	-	53,730	101	-
4b.1.4	Totals	1,380	1,047	110	333	590	2,220	-	1,658	7,335	7,335	-	-	5,809	10,790	-	-	-	1,268,909	62,938	-
4b.1	Subtotal Period 4b Activity Costs	1,722	6,246	385	904	6,847	5,309	-	4,945	26,359	26,294	-	65	67,344	23,525	-	-	-	4,880,878	201,050	-
Period 4b Additional Costs																					
4b.2.1	ISFSI license termination	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
4b.2.2	Curie Surcharge (excluding RPV)	-	-	-	-	-	111	-	28	139	139	-	-	-	-	-	-	-	-	-	-
4b.2.3	Contaminated Soil Remediation	-	491	1	238	-	1,360	-	499	2,589	-	-	-	-	10,981	-	-	-	834,548	11,937	-
4b.2	Subtotal Period 4b Additional Costs	-	735	5	291	-	1,840	706	794	4,372	2,728	1,643	-	-	13,012	-	-	-	1,047,814	16,638	1,280
Period 4b Collateral Costs																					
4b.3.1	Process liquid waste	9	-	9	55	-	179	-	58	310	310	-	-	-	-	176	-	-	22,131	35	-
4b.3.2	Small tool allowance	-	136	-	-	-	-	-	20	157	157	-	-	-	-	-	-	-	-	-	-
4b.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	189	19	208	208	-	-	-	-	-	-	-	-	-	-
4b.3.4	Fixed Overhead	-	-	-	-	-	-	807	121	927	927	-	-	-	-	-	-	-	-	-	-
4b.3	Subtotal Period 4b Collateral Costs	9	136	9	55	-	179	996	219	1,603	1,603	-	-	-	-	176	-	-	22,131	35	-
Period 4b Period-Dependent Costs																					
4b.4.1	Decon supplies	652	-	-	-	-	-	-	163	815	815	-	-	-	-	-	-	-	-	-	-
4b.4.2	Insurance	-	-	-	-	-	-	15	1	16	16	-	-	-	-	-	-	-	-	-	-
4b.4.3	Property taxes	-	-	-	-	-	-	1,105	110	1,215	1,215	-	-	-	-	-	-	-	-	-	-
4b.4.4	Health physics supplies	-	1,243	-	-	-	-	-	311	1,554	1,554	-	-	-	-	-	-	-	-	-	-
4b.4.5	Heavy equipment rental	-	3,748	-	-	-	-	-	562	4,310	4,310	-	-	-	-	-	-	-	-	-	-
4b.4.6	Disposal of DAW generated	-	-	51	53	-	423	-	119	646	646	-	-	-	4,073	-	-	-	81,615	1,000	-
4b.4.7	Plant energy budget	-	-	-	-	-	-	1,249	187	1,437	1,437	-	-	-	-	-	-	-	-	-	-
4b.4.8	NRC Fees	-	-	-	-	-	-	724	72	797	797	-	-	-	-	-	-	-	-	-	-
4b.4.9	Radwaste Processing Equipment/Services	-	-	-	-	-	-	795	119	915	915	-	-	-	-	-	-	-	-	-	-
4b.4.10	NEI Fees	-	-	-	-	-	-	289	29	318	318	-	-	-	-	-	-	-	-	-	-
4b.4.11	Security Staff Cost	-	-	-	-	-	-	1,426	214	1,640	1,640	-	-	-	-	-	-	-	-	-	71,477
4b.4.12	DOC Staff Cost	-	-	-	-	-	-	15,067	2,260	17,327	17,327	-	-	-	-	-	-	-	-	-	249,017
4b.4.13	Utility Staff Cost	-	-	-	-	-	-	23,037	3,455	26,492	26,492	-	-	-	-	-	-	-	-	-	426,557
4b.4	Subtotal Period 4b Period-Dependent Costs	652	4,991	51	53	-	423	43,707	7,604	57,481	57,481	-	-	-	4,073	-	-	-	81,615	1,000	747,051
4b.0	TOTAL PERIOD 4b COST	2,383	12,108	450	1,304	6,847	7,750	45,410	13,562	89,815	88,106	1,643	65	67,344	40,609	176	-	-	6,032,437	218,722	748,331
PERIOD 4d - Delay before License Termination																					
Period 4d Direct Decommissioning Activities																					
Period 4d Collateral Costs																					
4d.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	0	-	0	0	-	-	-	-	-	-	-	-	-	-
4d.3.2	Fixed Overhead	-	-	-	-	-	-	197	30	226	226	-	-	-	-	-	-	-	-	-	-
4d.3	Subtotal Period 4d Collateral Costs	-	-	-	-	-	-	197	30	227	227	-	-	-	-	-	-	-	-	-	-
Period 4d Period-Dependent Costs																					
4d.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4d.4.2	Property taxes	-	-	-	-	-	-	270	27	297	297	-	-	-	-	-	-	-	-	-	-
4d.4.3	Health physics supplies	-	32	-	-	-	-	-	8	40	40	-	-	-	-	-	-	-	-	-	-
4d.4.4	Disposal of DAW generated	-	-	1	1	-	6	-	2	9	9	-	-	-	55	-	-	-	1,093	13	-
4d.4.5	Plant energy budget	-	-	-	-	-	-	20	3	23	23	-	-	-	-	-	-	-	-	-	-
4d.4.6	NRC Fees	-	-	-	-	-	-	126	13	139	139	-	-	-	-	-	-	-	-	-	-
4d.4.7	NEI Fees	-	-	-	-	-	-	71	7	78	78	-	-	-	-	-	-	-	-	-	-
4d.4.8	Utility Staff Cost	-	-	-	-	-	-	455	68	524	524	-	-	-	-	-	-	-	-	-	9,006
4d.4	Subtotal Period 4d Period-Dependent Costs	-	32	1	1	-	6	942	128	1,109	1,109	-	-	-	55	-	-	-	1,093	13	9,006
4d.0	TOTAL PERIOD 4d COST	-	32	1	1	-	6	1,139	157	1,336	1,336	-	-	-	55	-	-	-	1,093	13	9,006

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 4e - License Termination																					
Period 4e Direct Decommissioning Activities																					
4e.1.1	ORISE confirmatory survey	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
4e.1.2	Terminate license									a											
4e.1	Subtotal Period 4e Activity Costs	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
Period 4e Additional Costs																					
4e.2.1	License Termination Survey	-	-	-	-	-	-	4,860	1,458	6,317	6,317	-	-	-	-	-	-	-	-	118,801	-
4e.2	Subtotal Period 4e Additional Costs	-	-	-	-	-	-	4,860	1,458	6,317	6,317	-	-	-	-	-	-	-	-	118,801	-
Period 4e Collateral Costs																					
4e.3.1	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
4e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
4e.3.3	Fixed Overhead	-	-	-	-	-	-	275	41	316	316	-	-	-	-	-	-	-	-	-	-
4e.3	Subtotal Period 4e Collateral Costs	-	-	-	-	-	-	1,158	174	1,332	1,332	-	-	-	-	-	-	-	-	-	-
Period 4e Period-Dependent Costs																					
4e.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4e.4.2	Property taxes	-	-	-	-	-	-	376	38	414	414	-	-	-	-	-	-	-	-	-	-
4e.4.3	Health physics supplies	-	570	-	-	-	-	-	142	712	712	-	-	-	-	-	-	-	-	-	-
4e.4.4	Disposal of DAW generated	-	-	4	4	-	32	-	9	48	48	-	-	-	305	-	-	-	6,105	75	-
4e.4.5	Plant energy budget	-	-	-	-	-	-	114	17	131	131	-	-	-	-	-	-	-	-	-	-
4e.4.6	NRC Fees	-	-	-	-	-	-	247	25	271	271	-	-	-	-	-	-	-	-	-	-
4e.4.7	NEI Fees	-	-	-	-	-	-	99	10	108	108	-	-	-	-	-	-	-	-	-	-
4e.4.8	Security Staff Cost	-	-	-	-	-	-	118	18	135	135	-	-	-	-	-	-	-	-	-	5,893
4e.4.9	DOC Staff Cost	-	-	-	-	-	-	2,169	325	2,495	2,495	-	-	-	-	-	-	-	-	-	36,143
4e.4.10	Utility Staff Cost	-	-	-	-	-	-	2,384	358	2,742	2,742	-	-	-	-	-	-	-	-	-	41,643
4e.4	Subtotal Period 4e Period-Dependent Costs	-	570	4	4	-	32	5,506	941	7,057	7,057	-	-	-	305	-	-	-	6,105	75	83,679
4e.0	TOTAL PERIOD 4e COST	-	570	4	4	-	32	11,645	2,609	14,863	14,863	-	-	-	305	-	-	-	6,105	118,876	83,679
PERIOD 4 TOTALS		2,561	30,241	6,670	5,721	14,155	32,094	88,481	36,855	216,778	211,241	1,643	3,893	123,188	75,122	3,831	365	560	12,890,390	602,112	1,349,211
PERIOD 5b - Site Restoration																					
Period 5b Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
5b.1.1.1	Reactor	-	6,065	-	-	-	-	-	910	6,975	-	-	6,975	-	-	-	-	-	-	119,121	-
5b.1.1.2	Fuel Handling	-	835	-	-	-	-	-	125	960	-	-	960	-	-	-	-	-	-	15,652	-
5b.1.1.3	Intake & CWS	-	379	-	-	-	-	-	57	436	-	-	436	-	-	-	-	-	-	7,440	-
5b.1.1.4	Miscellaneous Structures	-	998	-	-	-	-	-	149	1,148	-	-	1,148	-	-	-	-	-	-	19,549	-
5b.1.1.5	Primary Water Tank Foundation - Contam	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	48	-
5b.1.1.6	Reactor Auxiliary	-	1,445	-	-	-	-	-	217	1,662	-	-	1,662	-	-	-	-	-	-	25,872	-
5b.1.1.7	Refueling Water Storage Tank - Contam	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	106	-
5b.1.1.8	Turbine	-	1,266	-	-	-	-	-	190	1,455	-	-	1,455	-	-	-	-	-	-	28,421	-
5b.1.1.9	Turbine Pedestal	-	612	-	-	-	-	-	92	704	-	-	704	-	-	-	-	-	-	8,825	-
5b.1.1	Totals	-	11,606	-	-	-	-	-	1,741	13,347	-	-	13,347	-	-	-	-	-	-	225,033	-
Site Closeout Activities																					
5b.1.2	Grade & landscape site	-	849	-	-	-	-	-	127	976	-	-	976	-	-	-	-	-	-	2,525	-
5b.1.3	Final report to NRC	-	-	-	-	-	-	149	22	171	171	-	-	-	-	-	-	-	-	-	1,560
5b.1	Subtotal Period 5b Activity Costs	-	12,454	-	-	-	-	149	1,891	14,494	171	-	14,323	-	-	-	-	-	-	227,558	1,560
Period 5b Additional Costs																					
5b.2.1	Concrete Processing	-	316	-	-	-	-	1	48	365	-	-	365	-	-	-	-	-	-	2,162	-
5b.2.2	ISFSI site restoration	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
5b.2	Subtotal Period 5b Additional Costs	-	1,654	-	-	-	-	22	251	1,928	-	1,562	365	-	-	-	-	-	-	9,682	80

Table D-1
St. Lucie Nuclear Plant, Unit 1
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 5b Collateral Costs																					
5b.3.1	Small tool allowance	-	145	-	-	-	-	-	22	167	-	-	167	-	-	-	-	-	-	-	-
5b.3	Subtotal Period 5b Collateral Costs	-	145	-	-	-	-	-	22	167	-	-	167	-	-	-	-	-	-	-	
Period 5b Period-Dependent Costs																					
5b.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5b.4.2	Property taxes	-	-	-	-	-	-	934	93	1,027	-	-	1,027	-	-	-	-	-	-	-	-
5b.4.3	Heavy equipment rental	-	4,301	-	-	-	-	-	645	4,946	-	-	4,946	-	-	-	-	-	-	-	-
5b.4.4	Plant energy budget	-	-	-	-	-	-	141	21	162	-	-	162	-	-	-	-	-	-	-	-
5b.4.5	Security Staff Cost	-	-	-	-	-	-	292	44	335	-	-	335	-	-	-	-	-	-	-	14,614
5b.4.6	DOC Staff Cost	-	-	-	-	-	-	5,949	892	6,841	-	-	6,841	-	-	-	-	-	-	-	93,531
5b.4.7	Utility Staff Cost	-	-	-	-	-	-	3,293	494	3,787	-	-	3,787	-	-	-	-	-	-	-	52,611
5b.4	Subtotal Period 5b Period-Dependent Costs	-	4,301	-	-	-	-	10,608	2,190	17,099	-	-	17,099	-	-	-	-	-	-	-	160,757
5b.0	TOTAL PERIOD 5b COST	-	18,555	-	-	-	-	10,780	4,353	33,888	171	1,562	31,954	-	-	-	-	-	-	237,240	162,397
PERIOD 5 TOTALS		-	18,555	-	-	-	-	10,780	4,353	33,888	171	1,562	31,954	-	-	-	-	-	-	237,240	162,397
TOTAL COST TO DECOMMISSION		6,387	55,908	7,448	7,033	18,358	36,314	343,857	81,335	556,639	434,904	84,677	37,058	150,205	112,127	6,074	385	560	15,146,090	923,078	3,816,223

TOTAL COST TO DECOMMISSION WITH 17.11% CONTINGENCY:	**$556,639**	**thousands of 2004 dollars**
TOTAL NRC LICENSE TERMINATION COST IS 78.13% OR:	**$434,904**	**thousands of 2004 dollars**
SPENT FUEL MANAGEMENT COST IS 15.21% OR:	**$84,677**	**thousands of 2004 dollars**
NON-NUCLEAR DEMOLITION COST IS 6.66% OR:	**$37,058**	**thousands of 2004 dollars**
TOTAL RADWASTE VOLUME BURIED (EXCLUDING GTCC):	**118,566**	**cubic feet**
TOTAL GREATER THAN CLASS C RADWASTE VOLUME GENERATED:	**560**	**cubic feet**
TOTAL SCRAP METAL REMOVED:	**39,631**	**tons**
TOTAL CRAFT LABOR REQUIREMENTS:	**923,078**	**man-hours**

End Notes:
n/a - indicates that this activity not charged as decommissioning expense.
a - indicates that this activity performed by decommissioning staff.
0 - indicates that this value is less than 0.5 but is non-zero.
a cell containing " - " indicates a zero value

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 1a - Shutdown through Transition																					
Period 1a Direct Decommissioning Activities																					
1a.1.1	SAFSTOR site characterization survey	-	-	-	-	-	-	345	104	449	449	-	-	-	-	-	-	-	-	-	-
1a.1.2	Prepare preliminary decommissioning cost	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
1a.1.3	Notification of Cessation of Operations									a											
1a.1.4	Remove fuel & source material									n/a											
1a.1.5	Notification of Permanent Defueling									a											
1a.1.6	Deactivate plant systems & process waste									a											
1a.1.7	Prepare and submit PSDAR	-	-	-	-	-	-	82	12	94	94	-	-	-	-	-	-	-	-	-	856
1a.1.8	Review plant dwgs & specs.	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
1a.1.9	Perform detailed rad survey									a											
1a.1.10	Estimate by-product inventory	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1a.1.11	End product description	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1a.1.12	Detailed by-product inventory	-	-	-	-	-	-	61	9	71	71	-	-	-	-	-	-	-	-	-	642
1a.1.13	Define major work sequence	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
1a.1.14	Perform SER and EA	-	-	-	-	-	-	127	19	146	146	-	-	-	-	-	-	-	-	-	1,327
1a.1.15	Perform Site-Specific Cost Study	-	-	-	-	-	-	204	31	235	235	-	-	-	-	-	-	-	-	-	2,140
Activity Specifications																					
1a.1.16.1	Prepare plant and facilities for SAFSTOR	-	-	-	-	-	-	201	30	231	231	-	-	-	-	-	-	-	-	-	2,108
1a.1.16.2	Plant systems	-	-	-	-	-	-	170	26	196	196	-	-	-	-	-	-	-	-	-	1,783
1a.1.16.3	Plant structures and buildings	-	-	-	-	-	-	128	19	147	147	-	-	-	-	-	-	-	-	-	1,335
1a.1.16.4	Waste management	-	-	-	-	-	-	82	12	94	94	-	-	-	-	-	-	-	-	-	856
1a.1.16.5	Facility and site dormancy	-	-	-	-	-	-	82	12	94	94	-	-	-	-	-	-	-	-	-	856
1a.1.16	Total	-	-	-	-	-	-	663	99	762	762	-	-	-	-	-	-	-	-	-	6,936
Detailed Work Procedures																					
1a.1.17.1	Plant systems	-	-	-	-	-	-	48	7	56	56	-	-	-	-	-	-	-	-	-	506
1a.1.17.2	Facility closeout & dormancy	-	-	-	-	-	-	49	7	56	56	-	-	-	-	-	-	-	-	-	514
1a.1.17	Total	-	-	-	-	-	-	97	15	112	112	-	-	-	-	-	-	-	-	-	1,020
1a.1.18	Procure vacuum drying system	-	-	-	-	-	-	4	1	5	5	-	-	-	-	-	-	-	-	-	43
1a.1.19	Drain/de-energize non-cont. systems									a											
1a.1.20	Drain & dry NSSS									a											
1a.1.21	Drain/de-energize contaminated systems									a											
1a.1.22	Decon/secure contaminated systems									a											
1a.1	Subtotal Period 1a Activity Costs	-	-	-	-	-	-	1,813	324	2,137	2,137	-	-	-	-	-	-	-	-	-	15,361
Period 1a Collateral Costs																					
1a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,682	252	1,935	-	1,935	-	-	-	-	-	-	-	-	-
1a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
1a.3.3	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
1a.3	Subtotal Period 1a Collateral Costs	-	-	-	-	-	-	2,048	307	2,355	420	1,935	-	-	-	-	-	-	-	-	-
Period 1a Period-Dependent Costs																					
1a.4.1	Insurance	-	-	-	-	-	-	14	1	15	15	-	-	-	-	-	-	-	-	-	-
1a.4.2	Property taxes	-	-	-	-	-	-	2,269	227	2,496	2,496	-	-	-	-	-	-	-	-	-	-
1a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
1a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
1a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
1a.4.6	Plant energy budget	-	-	-	-	-	-	753	113	866	866	-	-	-	-	-	-	-	-	-	-
1a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
1a.4.8	Emergency Planning Fees	-	-	-	-	-	-	125	12	137	-	137	-	-	-	-	-	-	-	-	-
1a.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	997	149	1,146	-	1,146	-	-	-	-	-	-	-	-	-
1a.4.10	ISFSI Operating Costs	-	-	-	-	-	-	37	5	42	-	42	-	-	-	-	-	-	-	-	-
1a.4.11	INPO Fees	-	-	-	-	-	-	450	45	495	495	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1a Period-Dependent Costs (continued)																					
1a.4.12	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-
1a.4.13	Security Staff Cost	-	-	-	-	-	-	1,176	176	1,352	1,352	-	-	-	-	-	-	-	-	-	58,921
1a.4.14	Utility Staff Cost	-	-	-	-	-	-	24,097	3,615	27,712	27,712	-	-	-	-	-	-	-	-	-	438,000
1a.4	Subtotal Period 1a Period-Dependent Costs	-	567	5	5	-	42	30,312	4,505	35,437	34,111	1,325	-	-	404	-	-	-	8,103	99	496,921
1a.0	TOTAL PERIOD 1a COST	-	567	5	5	-	42	34,173	5,136	39,928	36,868	3,260	-	-	404	-	-	-	8,103	99	512,282
PERIOD 1b - SAFSTOR Limited DECON Activities																					
Period 1b Direct Decommissioning Activities																					
Decontamination of Site Buildings																					
1b.1.1.1	Reactor	813	-	-	-	-	-	-	407	1,220	1,220	-	-	-	-	-	-	-	-	22,339	-
1b.1.1.2	Fuel Handling	321	-	-	-	-	-	-	161	482	482	-	-	-	-	-	-	-	-	8,003	-
1b.1.1.3	Reactor Auxiliary	369	-	-	-	-	-	-	184	553	553	-	-	-	-	-	-	-	-	10,511	-
1b.1.1.4	Steam Generator Blowdown Treatment	119	-	-	-	-	-	-	60	179	179	-	-	-	-	-	-	-	-	3,402	-
1b.1.1	Totals	1,623	-	-	-	-	-	-	811	2,434	2,434	-	-	-	-	-	-	-	-	44,255	-
1b.1	Subtotal Period 1b Activity Costs	1,623	-	-	-	-	-	-	811	2,434	2,434	-	-	-	-	-	-	-	-	44,255	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
1b.3.2	Process liquid waste	149	-	52	322	-	760	-	318	1,602	1,602	-	-	-	-	1,024	-	-	129,104	201	-
1b.3.3	Small tool allowance	-	27	-	-	-	-	-	4	31	31	-	-	-	-	-	-	-	-	-	-
1b.3.4	Spent Fuel Capital and Transfer	-	-	-	-	-	-	336	50	387	-	387	-	-	-	-	-	-	-	-	-
1b.3.5	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
1b.3.6	Fixed Overhead	-	-	-	-	-	-	92	14	106	106	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Collateral Costs	851	27	52	322	-	760	431	492	2,936	2,549	387	-	-	-	1,024	-	-	129,104	201	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	630	-	-	-	-	-	-	157	787	787	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	3	0	4	4	-	-	-	-	-	-	-	-	-	-
1b.4.3	Property taxes	-	-	-	-	-	-	330	33	363	363	-	-	-	-	-	-	-	-	-	-
1b.4.4	Health physics supplies	-	206	-	-	-	-	-	52	258	258	-	-	-	-	-	-	-	-	-	-
1b.4.5	Heavy equipment rental	-	83	-	-	-	-	-	12	95	95	-	-	-	-	-	-	-	-	-	-
1b.4.6	Disposal of DAW generated	-	-	8	8	-	63	-	18	98	98	-	-	-	607	-	-	-	12,162	149	-
1b.4.7	Plant energy budget	-	-	-	-	-	-	190	28	218	218	-	-	-	-	-	-	-	-	-	-
1b.4.8	NRC Fees	-	-	-	-	-	-	67	7	74	74	-	-	-	-	-	-	-	-	-	-
1b.4.9	Emergency Planning Fees	-	-	-	-	-	-	31	3	35	-	35	-	-	-	-	-	-	-	-	-
1b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	251	38	289	-	289	-	-	-	-	-	-	-	-	-
1b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1b.4.12	NEI Fees	-	-	-	-	-	-	33	3	36	36	-	-	-	-	-	-	-	-	-	-
1b.4.13	Security Staff Cost	-	-	-	-	-	-	298	44	341	341	-	-	-	-	-	-	-	-	-	14,851
1b.4.14	Utility Staff Cost	-	-	-	-	-	-	6,074	911	6,985	6,985	-	-	-	-	-	-	-	-	-	110,400
1b.4	Subtotal Period 1b Period-Dependent Costs	630	289	8	8	-	63	7,285	1,309	9,590	9,256	334	-	-	607	-	-	-	12,162	149	125,251
1b.0	TOTAL PERIOD 1b COST	3,104	315	60	330	-	823	7,716	2,612	14,961	14,240	721	-	-	607	1,024	-	-	141,266	44,605	125,251
PERIOD 1c - Preparations for SAFSTOR Dormancy																					
Period 1c Direct Decommissioning Activities																					
1c.1.1	Prepare support equipment for storage	-	375	-	-	-	-	-	56	431	431	-	-	-	-	-	-	-	-	3,000	-
1c.1.2	Install containment pressure equal. lines	-	29	-	-	-	-	-	4	33	33	-	-	-	-	-	-	-	-	700	-
1c.1.3	Interim survey prior to dormancy	-	-	-	-	-	-	733	220	953	953	-	-	-	-	-	-	-	-	15,753	-
1c.1.4	Secure building accesses									a											
1c.1.5	Prepare & submit interim report	-	-	-	-	-	-	24	4	27	27	-	-	-	-	-	-	-	-	-	250

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
1c.1	Subtotal Period 1c Activity Costs	-	403	-	-	-	-	757	284	1,444	1,444	-	-	-	-	-	-	-	-	19,453	250
Period 1c Additional Costs																					
1c.2.1	Spent Fuel Pool Isolation	-	-	-	-	-	-	5,572	836	6,408	6,408	-	-	-	-	-	-	-	-	-	-
1c.2.2	Mixed/Hazardous Waste	-	-	376	148	4,204	-	-	690	5,418	5,418	-	-	27,017	-	-	-	-	1,397,259	5,601	-
1c.2	Subtotal Period 1c Additional Costs	-	-	376	148	4,204	-	5,572	1,526	11,826	11,826	-	-	27,017	-	-	-	-	1,397,259	5,601	-
Period 1c Collateral Costs																					
1c.3.1	Process liquid waste	179	-	63	388	-	902	-	380	1,912	1,912	-	-	-	-	1,233	-	-	155,365	242	-
1c.3.2	Small tool allowance	-	3	-	-	-	-	-	0	3	3	-	-	-	-	-	-	-	-	-	-
1c.3.3	Spent Fuel Capital and Transfer	-	-	-	-	-	-	340	51	391	-	391	-	-	-	-	-	-	-	-	-
1c.3.4	Florida LLRW Inspection Fee	-	-	-	-	-	-	108	11	119	119	-	-	-	-	-	-	-	-	-	-
1c.3.5	Fixed Overhead	-	-	-	-	-	-	93	14	107	107	-	-	-	-	-	-	-	-	-	-
1c.3	Subtotal Period 1c Collateral Costs	179	3	63	388	-	902	541	456	2,531	2,140	391	-	-	-	1,233	-	-	155,365	242	-
Period 1c Period-Dependent Costs																					
1c.4.1	Insurance	-	-	-	-	-	-	3	0	4	4	-	-	-	-	-	-	-	-	-	-
1c.4.2	Property taxes	-	-	-	-	-	-	333	33	367	367	-	-	-	-	-	-	-	-	-	-
1c.4.3	Health physics supplies	-	144	-	-	-	-	-	36	180	180	-	-	-	-	-	-	-	-	-	-
1c.4.4	Heavy equipment rental	-	83	-	-	-	-	-	13	96	96	-	-	-	-	-	-	-	-	-	-
1c.4.5	Disposal of DAW generated	-	-	1	1	-	11	-	3	16	16	-	-	-	103	-	-	-	2,065	25	-
1c.4.6	Plant energy budget	-	-	-	-	-	-	192	29	221	221	-	-	-	-	-	-	-	-	-	-
1c.4.7	NRC Fees	-	-	-	-	-	-	68	7	74	74	-	-	-	-	-	-	-	-	-	-
1c.4.8	Emergency Planning Fees	-	-	-	-	-	-	32	3	35	-	35	-	-	-	-	-	-	-	-	-
1c.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	254	38	292	-	292	-	-	-	-	-	-	-	-	-
1c.4.10	ISFSI Operating Costs	-	-	-	-	-	-	9	1	11	-	11	-	-	-	-	-	-	-	-	-
1c.4.11	NEI Fees	-	-	-	-	-	-	33	3	37	37	-	-	-	-	-	-	-	-	-	-
1c.4.12	Security Staff Cost	-	-	-	-	-	-	300	45	344	344	-	-	-	-	-	-	-	-	-	15,013
1c.4.13	Utility Staff Cost	-	-	-	-	-	-	6,140	921	7,061	7,061	-	-	-	-	-	-	-	-	-	111,600
1c.4	Subtotal Period 1c Period-Dependent Costs	-	227	1	1	-	11	7,364	1,133	8,737	8,400	338	-	-	103	-	-	-	2,065	25	126,613
1c.0	TOTAL PERIOD 1c COST	179	633	440	538	4,204	913	14,234	3,399	24,539	23,811	729	-	27,017	103	1,233	-	-	1,554,689	25,322	126,863
PERIOD 1 TOTALS		3,283	1,516	505	873	4,204	1,778	56,124	11,146	79,428	74,719	4,710	-	27,017	1,114	2,257	-	-	1,704,058	70,026	764,396
PERIOD 2a - SAFSTOR Dormancy with Wet Spent Fuel Storage																					
Period 2a Direct Decommissioning Activities																					
2a.1.1	Quarterly Inspection									a											
2a.1.2	Semi-annual environmental survey									a											
2a.1.3	Prepare reports									a											
2a.1.4	Bituminous roof replacement	-	-	-	-	-	-	129	19	148	148	-	-	-	-	-	-	-	-	-	-
2a.1.5	Maintenance supplies	-	-	-	-	-	-	503	126	629	629	-	-	-	-	-	-	-	-	-	-
2a.1	Subtotal Period 2a Activity Costs	-	-	-	-	-	-	631	145	776	776	-	-	-	-	-	-	-	-	-	-
Period 2a Collateral Costs																					
2a.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	4,612	692	5,303	-	5,303	-	-	-	-	-	-	-	-	-
2a.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	3	0	3	3	-	-	-	-	-	-	-	-	-	-
2a.3.3	Fixed Overhead	-	-	-	-	-	-	292	44	336	336	-	-	-	-	-	-	-	-	-	-
2a.3	Subtotal Period 2a Collateral Costs	-	-	-	-	-	-	4,907	736	5,642	339	5,303	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																					
2a.4.1	Insurance	-	-	-	-	-	-	35	3	38	22	16	-	-	-	-	-	-	-	-	-
2a.4.2	Property taxes	-	-	-	-	-	-	2,336	234	2,570	2,199	372	-	-	-	-	-	-	-	-	-
2a.4.3	Health physics supplies	-	239	-	-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
2a.4.4	Disposal of DAW generated	-	-	20	21	-	168	-	47	256	256	-	-	-	1,617	-	-	-	32,412	397	-
2a.4.5	Plant energy budget	-	-	-	-	-	-	2,260	339	2,599	347	2,253	-	-	-	-	-	-	-	-	-
2a.4.6	NRC Fees	-	-	-	-	-	-	936	94	1,030	1,030	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 2a Period-Dependent Costs (continued)																					
2a.4.7	Emergency Planning Fees	-	-	-	-	-	-	500	50	550	-	550	-	-	-	-	-	-	-	-	-
2a.4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	3,986	598	4,584	-	4,584	-	-	-	-	-	-	-	-	-
2a.4.9	ISFSI Operating Costs	-	-	-	-	-	-	146	22	168	-	168	-	-	-	-	-	-	-	-	-
2a.4.10	NEI Fees	-	-	-	-	-	-	524	52	576	-	576	-	-	-	-	-	-	-	-	-
2a.4.11	Security Staff Cost	-	-	-	-	-	-	2,580	387	2,967	1,005	1,962	-	-	-	-	-	-	-	-	129,314
2a.4.12	Utility Staff Cost	-	-	-	-	-	-	17,624	2,644	20,267	7,218	13,049	-	-	-	-	-	-	-	-	331,829
2a.4	Subtotal Period 2a Period-Dependent Costs	-	239	20	21	-	168	30,927	4,530	35,905	12,375	23,530	-	-	1,617	-	-	-	32,412	397	460,943
2a.0	TOTAL PERIOD 2a COST	-	239	20	21	-	168	36,465	5,410	42,324	13,491	28,833	-	-	1,617	-	-	-	32,412	397	460,943
PERIOD 2b - SAFSTOR Dormancy with Dry Spent Fuel Storage																					
Period 2b Direct Decommissioning Activities																					
2b.1.1	Quarterly Inspection									a											
2b.1.2	Semi-annual environmental survey									a											
2b.1.3	Prepare reports									a											
2b.1.4	Bituminous roof replacement	-	-	-	-	-	-	394	59	453	453	-	-	-	-	-	-	-	-	-	-
2b.1.5	Maintenance supplies	-	-	-	-	-	-	1,539	385	1,924	1,924	-	-	-	-	-	-	-	-	-	-
2b.1	Subtotal Period 2b Activity Costs	-	-	-	-	-	-	1,933	444	2,376	2,376	-	-	-	-	-	-	-	-	-	-
Period 2b Collateral Costs																					
2b.3.1	Spent Fuel Capital and Transfer	-	-	-	-	-	-	1,950	292	2,242	-	2,242	-	-	-	-	-	-	-	-	-
2b.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	10	1	11	11	-	-	-	-	-	-	-	-	-	-
2b.3.3	Fixed Overhead	-	-	-	-	-	-	893	134	1,027	1,027	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	-	-	-	-	-	-	2,853	427	3,280	1,038	2,242	-	-	-	-	-	-	-	-	-
Period 2b Period-Dependent Costs																					
2b.4.1	Insurance	-	-	-	-	-	-	61	6	67	67	-	-	-	-	-	-	-	-	-	-
2b.4.2	Property taxes	-	-	-	-	-	-	6,118	612	6,730	6,730	-	-	-	-	-	-	-	-	-	-
2b.4.3	Health physics supplies	-	733	-	-	-	-	-	183	916	916	-	-	-	-	-	-	-	-	-	-
2b.4.4	Disposal of DAW generated	-	-	62	65	-	514	-	144	785	785	-	-	-	4,951	-	-	-	99,212	1,216	-
2b.4.5	Plant energy budget	-	-	-	-	-	-	922	138	1,061	1,061	-	-	-	-	-	-	-	-	-	-
2b.4.6	NRC Fees	-	-	-	-	-	-	2,866	287	3,152	3,152	-	-	-	-	-	-	-	-	-	-
2b.4.7	Emergency Planning Fees	-	-	-	-	-	-	618	62	680	-	680	-	-	-	-	-	-	-	-	-
2b.4.8	ISFSI Operating Costs	-	-	-	-	-	-	448	67	515	-	515	-	-	-	-	-	-	-	-	-
2b.4.9	Utility Staff Cost	-	-	-	-	-	-	19,686	2,953	22,639	22,094	545	-	-	-	-	-	-	-	-	354,711
2b.4	Subtotal Period 2b Period-Dependent Costs	-	733	62	65	-	514	30,718	4,452	36,543	34,804	1,739	-	-	4,951	-	-	-	99,212	1,216	354,711
2b.0	TOTAL PERIOD 2b COST	-	733	62	65	-	514	35,503	5,323	42,200	38,218	3,982	-	-	4,951	-	-	-	99,212	1,216	354,711
PERIOD 2c - SAFSTOR Dormancy without Spent Fuel Storage																					
Period 2c Direct Decommissioning Activities																					
2c.1.1	Quarterly Inspection									a											
2c.1.2	Semi-annual environmental survey									a											
2c.1.3	Prepare reports									a											
2c.1.4	Bituminous roof replacement	-	-	-	-	-	-	956	143	1,099	1,099	-	-	-	-	-	-	-	-	-	-
2c.1.5	Maintenance supplies	-	-	-	-	-	-	3,737	934	4,671	4,671	-	-	-	-	-	-	-	-	-	-
2c.1	Subtotal Period 2c Activity Costs	-	-	-	-	-	-	4,693	1,078	5,770	5,770	-	-	-	-	-	-	-	-	-	-
Period 2c Collateral Costs																					
2c.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	23	2	26	26	-	-	-	-	-	-	-	-	-	-
2c.3.2	Fixed Overhead	-	-	-	-	-	-	2,169	325	2,494	2,494	-	-	-	-	-	-	-	-	-	-
2c.3	Subtotal Period 2c Collateral Costs	-	-	-	-	-	-	2,192	328	2,520	2,520	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes				Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
															Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet			
Period 2c Period-Dependent Costs																					
2c.4.1	Insurance	-	-	-	-	-	-	147	15	162	162	-	-	-	-	-	-	-	-	-	-
2c.4.2	Property taxes	-	-	-	-	-	-	14,854	1,485	16,340	16,340	-	-	-	-	-	-	-	-	-	-
2c.4.3	Health physics supplies	-	1,779	-	-	-	-	-	445	2,223	2,223	-	-	-	-	-	-	-	-	-	-
2c.4.4	Disposal of DAW generated	-	-	151	157	-	1,248	-	350	1,905	1,905	-	-	-	12,021	-	-	-	240,892	2,951	-
2c.4.5	Plant energy budget	-	-	-	-	-	-	2,240	336	2,576	2,576	-	-	-	-	-	-	-	-	-	-
2c.4.6	NRC Fees	-	-	-	-	-	-	6,958	696	7,653	7,653	-	-	-	-	-	-	-	-	-	-
2c.4.7	Security Staff Cost	-	-	-	-	-	-	6,495	974	7,470	7,470	-	-	-	-	-	-	-	-	-	325,530
2c.4.8	Utility Staff Cost	-	-	-	-	-	-	46,648	6,997	53,646	53,646	-	-	-	-	-	-	-	-	-	868,080
2c.4	Subtotal Period 2c Period-Dependent Costs	-	1,779	151	157	-	1,248	77,343	11,299	91,975	91,975	-	-	-	12,021	-	-	-	240,892	2,951	1,193,610
2c.0	TOTAL PERIOD 2c COST	-	1,779	151	157	-	1,248	84,228	12,704	100,265	100,265	-	-	-	12,021	-	-	-	240,892	2,951	1,193,610
PERIOD 2 TOTALS		-	2,750	233	242	-	1,930	156,196	23,437	184,788	151,974	32,815	-	-	18,589	-	-	-	372,516	4,564	2,009,264
PERIOD 3a - Reactivate Site Following SAFSTOR Dormancy																					
Period 3a Direct Decommissioning Activities																					
3a.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
3a.1.2	Review plant dwgs & specs.	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,969
3a.1.3	Perform detailed rad survey									a											
3a.1.4	End product description	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
3a.1.5	Detailed by-product inventory	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	556
3a.1.6	Define major work sequence	-	-	-	-	-	-	307	46	353	353	-	-	-	-	-	-	-	-	-	3,210
3a.1.7	Perform SER and EA	-	-	-	-	-	-	127	19	146	146	-	-	-	-	-	-	-	-	-	1,327
3a.1.8	Perform Site-Specific Cost Study	-	-	-	-	-	-	204	31	235	235	-	-	-	-	-	-	-	-	-	2,140
3a.1.9	Prepare/submit License Termination Plan	-	-	-	-	-	-	168	25	193	193	-	-	-	-	-	-	-	-	-	1,753
3a.1.10	Receive NRC approval of termination plan									a											
Activity Specifications																					
3a.1.11.1	Re-activate plant & temporary facilities	-	-	-	-	-	-	301	45	347	312	-	35	-	-	-	-	-	-	-	3,154
3a.1.11.2	Plant systems	-	-	-	-	-	-	170	26	196	176	-	20	-	-	-	-	-	-	-	1,783
3a.1.11.3	Reactor internals	-	-	-	-	-	-	290	44	334	334	-	-	-	-	-	-	-	-	-	3,039
3a.1.11.4	Reactor vessel	-	-	-	-	-	-	266	40	306	306	-	-	-	-	-	-	-	-	-	2,782
3a.1.11.5	Biological shield	-	-	-	-	-	-	20	3	24	24	-	-	-	-	-	-	-	-	-	214
3a.1.11.6	Steam generators	-	-	-	-	-	-	128	19	147	147	-	-	-	-	-	-	-	-	-	1,335
3a.1.11.7	Reinforced concrete	-	-	-	-	-	-	65	10	75	38	-	38	-	-	-	-	-	-	-	685
3a.1.11.8	Main Turbine	-	-	-	-	-	-	16	2	19	-	-	19	-	-	-	-	-	-	-	171
3a.1.11.9	Main Condensers	-	-	-	-	-	-	16	2	19	-	-	19	-	-	-	-	-	-	-	171
3a.1.11.10	Plant structures & buildings	-	-	-	-	-	-	128	19	147	73	-	73	-	-	-	-	-	-	-	1,335
3a.1.11.11	Waste management	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,969
3a.1.11.12	Facility & site closeout	-	-	-	-	-	-	37	6	42	21	-	21	-	-	-	-	-	-	-	385
3a.1.11	Total	-	-	-	-	-	-	1,627	244	1,871	1,647	-	224	-	-	-	-	-	-	-	17,024
Planning & Site Preparations																					
3a.1.12	Prepare dismantling sequence	-	-	-	-	-	-	98	15	113	113	-	-	-	-	-	-	-	-	-	1,027
3a.1.13	Plant prep. & temp. svces	-	-	-	-	-	-	2,419	363	2,782	2,782	-	-	-	-	-	-	-	-	-	-
3a.1.14	Design water clean-up system	-	-	-	-	-	-	57	9	66	66	-	-	-	-	-	-	-	-	-	599
3a.1.15	Rigging/Cont. Cntrl Envlps/tooling/etc.	-	-	-	-	-	-	2,048	307	2,355	2,355	-	-	-	-	-	-	-	-	-	-
3a.1.16	Procure casks/liners & containers	-	-	-	-	-	-	50	8	58	58	-	-	-	-	-	-	-	-	-	526
3a.1	Subtotal Period 3a Activity Costs	-	-	-	-	-	-	7,440	1,116	8,556	8,332	-	224	-	-	-	-	-	-	-	31,117
Period 3a Collateral Costs																					
3a.3.1	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
3a.3.2	Fixed Overhead	-	-	-	-	-	-	365	55	419	419	-	-	-	-	-	-	-	-	-	-
3a.3	Subtotal Period 3a Collateral Costs	-	-	-	-	-	-	366	55	420	420	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 3a Period-Dependent Costs																					
3a.4.1	Insurance	-	-	-	-	-	-	5	0	5	5	-	-	-	-	-	-	-	-	-	-
3a.4.2	Property taxes	-	-	-	-	-	-	500	50	550	550	-	-	-	-	-	-	-	-	-	-
3a.4.3	Health physics supplies	-	239		-	-	-	-	60	299	299	-	-	-	-	-	-	-	-	-	-
3a.4.4	Heavy equipment rental	-	328	-	-	-	-	-	49	377	377	-	-	-	-	-	-	-	-	-	-
3a.4.5	Disposal of DAW generated	-	-	5	5	-	42	-	12	64	64	-	-	-	404	-	-	-	8,103	99	-
3a.4.6	Plant energy budget	-	-	-	-	-	-	585	65	650	650	-	-	-	-	-	-	-	-	-	-
3a.4.7	NRC Fees	-	-	-	-	-	-	265	27	292	292	-	-	-	-	-	-	-	-	-	-
3a.4.8	NEI Fees	-	-	-	-	-	-	131	13	144	144	-	-	-	-	-	-	-	-	-	-
3a.4.9	Security Staff Cost	-	-	-	-	-	-	323	48	371	371	-	-	-	-	-	-	-	-	-	16,164
3a.4.10	Utility Staff Cost	-	-	-	-	-	-	15,182	2,277	17,459	17,459	-	-	-	-	-	-	-	-	-	264,364
3a.4	Subtotal Period 3a Period-Dependent Costs	-	567	5	5	-	42	16,970	2,621	20,211	20,211	-	-	-	404	-	-	-	8,103	99	280,529
3a.0	TOTAL PERIOD 3a COST	-	567	5	5	-	42	24,776	3,792	29,187	28,963	-	224	-	404	-	-	-	8,103	99	311,645
PERIOD 3b - Decommissioning Preparations																					
Period 3b Direct Decommissioning Activities																					
Detailed Work Procedures																					
3b.1.1.1	Plant systems	-	-	-	-	-	-	194	29	223	200	-	22	-	-	-	-	-	-	-	2,020
3b.1.1.2	Reactor internals	-	-	-	-	-	-	102	15	118	118	-	-	-	-	-	-	-	-	-	1,070
3b.1.1.3	Remaining buildings	-	-	-	-	-	-	55	8	63	16	-	48	-	-	-	-	-	-	-	578
3b.1.1.4	CRD cooling assembly	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
3b.1.1.5	CRD housings & ICI tubes	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
3b.1.1.6	Incore instrumentation	-	-	-	-	-	-	41	6	47	47	-	-	-	-	-	-	-	-	-	428
3b.1.1.7	Reactor vessel	-	-	-	-	-	-	148	22	171	171	-	-	-	-	-	-	-	-	-	1,554
3b.1.1.8	Facility closeout	-	-	-	-	-	-	49	7	56	28	-	28	-	-	-	-	-	-	-	514
3b.1.1.9	Missile shields	-	-	-	-	-	-	18	3	21	21	-	-	-	-	-	-	-	-	-	193
3b.1.1.10	Biological shield	-	-	-	-	-	-	49	7	56	56	-	-	-	-	-	-	-	-	-	514
3b.1.1.11	Steam generators	-	-	-	-	-	-	188	28	216	216	-	-	-	-	-	-	-	-	-	1,969
3b.1.1.12	Reinforced concrete	-	-	-	-	-	-	41	6	47	24	-	24	-	-	-	-	-	-	-	428
3b.1.1.13	Main Turbine	-	-	-	-	-	-	64	10	73	-	-	73	-	-	-	-	-	-	-	668
3b.1.1.14	Main Condensers	-	-	-	-	-	-	64	10	73	-	-	73	-	-	-	-	-	-	-	668
3b.1.1.15	Auxiliary building	-	-	-	-	-	-	112	17	128	116	-	13	-	-	-	-	-	-	-	1,168
3b.1.1.16	Reactor building	-	-	-	-	-	-	112	17	128	116	-	13	-	-	-	-	-	-	-	1,168
3b.1.1	Total	-	-	-	-	-	-	1,319	198	1,517	1,222	-	294	-	-	-	-	-	-	-	13,800
3b.1	Subtotal Period 3b Activity Costs	-	-	-	-	-	-	1,319	198	1,517	1,222	-	294	-	-	-	-	-	-	-	13,800
Period 3b Additional Costs																					
3b.2.1	Asbestos Removal Program	-	377	0	79	-	89	-	128	674	674	-	-	-	6,591	-	-	-	54,573	6,939	-
3b.2.2	Site Characterization Survey	-	-	-	-	-	-	1,269	381	1,650	1,650	-	-	-	-	-	-	-	-	-	-
3b.2	Subtotal Period 3b Additional Costs	-	377	0	79	-	89	1,269	509	2,324	2,324	-	-	-	6,591	-	-	-	54,573	6,939	-
Period 3b Collateral Costs																					
3b.3.1	Decon equipment	702	-	-	-	-	-	-	105	808	808	-	-	-	-	-	-	-	-	-	-
3b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
3b.3.3	Small tool allowance	-	5	-	-	-	-	-	1	6	6	-	-	-	-	-	-	-	-	-	-
3b.3.4	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
3b.3.5	Florida LLRW Inspection Fee	-	-	-	-	-	-	13	1	15	15	-	-	-	-	-	-	-	-	-	-
3b.3.6	Fixed Overhead	-	-	-	-	-	-	185	28	213	213	-	-	-	-	-	-	-	-	-	-
3b.3	Subtotal Period 3b Collateral Costs	702	962	-	-	-	-	1,081	411	3,156	3,156	-	-	-	-	-	-	-	-	-	-
Period 3b Period-Dependent Costs																					
3b.4.1	Decon supplies	21	-	-	-	-	-	-	5	26	26	-	-	-	-	-	-	-	-	-	-
3b.4.2	Insurance	-	-	-	-	-	-	3	0	4	4	-	-	-	-	-	-	-	-	-	-
3b.4.3	Property taxes	-	-	-	-	-	-	253	25	279	279	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Burial Volumes Class B Cu. Feet	Burial Volumes Class C Cu. Feet	Burial Volumes GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 3b Period-Dependent Costs (continued)																					
3b.4.4	Health physics supplies	-	144	-	-	-	-	-	36	180	180	-	-	-	-	-	-	-	-	-	-
3b.4.5	Heavy equipment rental	-	166	-	-	-	-	-	25	191	191	-	-	-	-	-	-	-	-	-	-
3b.4.6	Disposal of DAW generated	-	-	3	3	-	21	-	6	32	32	-	-	-	205	-	-	-	4,107	50	-
3b.4.7	Plant energy budget	-	-	-	-	-	-	286	43	329	329	-	-	-	-	-	-	-	-	-	-
3b.4.8	NRC Fees	-	-	-	-	-	-	134	13	148	148	-	-	-	-	-	-	-	-	-	-
3b.4.9	NEI Fees	-	-	-	-	-	-	66	7	73	73	-	-	-	-	-	-	-	-	-	-
3b.4.10	Security Staff Cost	-	-	-	-	-	-	163	25	188	188	-	-	-	-	-	-	-	-	-	8,193
3b.4.11	DOC Staff Cost	-	-	-	-	-	-	4,310	647	4,957	4,957	-	-	-	-	-	-	-	-	-	64,486
3b.4.12	Utility Staff Cost	-	-	-	-	-	-	7,862	1,179	9,041	9,041	-	-	-	-	-	-	-	-	-	137,164
3b.4	Subtotal Period 3b Period-Dependent Costs	21	310	3	3	-	21	13,079	2,011	15,448	15,448	-	-	-	205	-	-	-	4,107	50	209,843
3b.0	TOTAL PERIOD 3b COST	723	1,648	3	82	-	110	16,748	3,129	22,445	22,151	-	294	-	6,796	-	-	-	58,680	6,989	223,643
PERIOD 3 TOTALS		723	2,215	8	87	-	152	41,525	6,921	51,632	51,114	-	518	-	7,200	-	-	-	66,783	7,089	535,288
PERIOD 4a - Large Component Removal																					
Period 4a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
4a.1.1.1	Reactor Coolant Piping	9	35	5	11	13	159	-	57	289	289	-	-	47	420	-	-	-	55,955	1,227	-
4a.1.1.2	Pressurizer Relief Tank	1	4	1	2	2	25	-	8	43	43	-	-	8	71	-	-	-	8,699	142	-
4a.1.1.3	Reactor Coolant Pumps & Motors	22	57	36	339	256	1,627	-	525	2,863	2,863	-	-	1,047	5,306	-	-	-	620,400	2,563	-
4a.1.1.4	Pressurizer	6	41	429	482	-	570	-	271	1,797	1,797	-	-	-	2,134	-	-	-	197,650	1,801	-
4a.1.1.5	Steam Generators	33	2,061	1,610	2,400	2,161	2,822	-	2,082	13,168	13,168	-	-	14,265	10,568	-	-	-	2,458,344	12,559	-
4a.1.1.6	CRDMs/ICIs/Service Structure Removal	24	74	117	62	21	230	-	112	638	638	-	-	223	3,481	-	-	-	81,383	2,519	-
4a.1.1.7	Reactor Vessel Internals	36	1,462	3,070	515	-	2,407	128	3,233	10,850	10,850	-	-	-	1,710	626	365	-	263,734	16,938	810
4a.1.1.8	Vessel & Internals GTCC Disposal	-	-	-	-	-	10,802	-	1,620	12,423	12,423	-	-	-	-	-	-	560	114,316	-	-
4a.1.1.9	Reactor Vessel	-	3,164	698	405	-	5,154	128	5,245	14,794	14,794	-	-	-	6,787	2,955	-	-	997,240	16,938	810
4a.1.1	Totals	131	6,897	5,964	4,216	2,453	23,795	255	13,154	56,864	56,864	-	-	15,589	30,457	3,581	365	560	4,797,720	54,686	1,619
Removal of Major Equipment																					
4a.1.2	Main Turbine/Generator	-	199	75	26	623	-	-	155	1,078	1,078	-	-	2,934	-	-	-	-	249,382	5,383	-
4a.1.3	Main Condensers	-	727	55	26	637	-	-	287	1,732	1,732	-	-	5,664	-	-	-	-	254,691	20,075	-
Cascading Costs from Clean Building Demolition																					
4a.1.4.1	Reactor	-	1,056	-	-	-	-	-	158	1,214	1,214	-	-	-	-	-	-	-	-	20,764	-
4a.1.4.2	Fuel Handling	-	91	-	-	-	-	-	14	104	104	-	-	-	-	-	-	-	-	1,680	-
4a.1.4.3	Reactor Auxiliary	-	160	-	-	-	-	-	24	184	184	-	-	-	-	-	-	-	-	2,864	-
4a.1.4.4	Steam Generator Blowdown Treatment	-	21	-	-	-	-	-	3	24	24	-	-	-	-	-	-	-	-	392	-
4a.1.4	Totals	-	1,327	-	-	-	-	-	199	1,526	1,526	-	-	-	-	-	-	-	-	25,700	-
Disposal of Plant Systems																					
4a.1.5.1	Air Evacuation	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	177	-
4a.1.5.2	Air Evacuation - Insulated	-	25	-	-	-	-	-	4	28	-	-	28	-	-	-	-	-	-	777	-
4a.1.5.3	Auxiliary Steam - Insulated	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	410	-
4a.1.5.4	Chemical & Volume Control	-	79	5	11	99	79	-	56	329	329	-	-	972	334	-	-	-	64,474	2,110	-
4a.1.5.5	Chemical & Volume Control - Insulated	-	415	26	46	48	490	-	243	1,268	1,268	-	-	469	1,744	-	-	-	175,243	10,420	-
4a.1.5.6	Chemical Feed	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	71	-
4a.1.5.7	Chemical Feed - Insulated	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	42	-
4a.1.5.8	Circulating & Intake Cooling Water	-	210	-	-	-	-	-	31	241	-	-	241	-	-	-	-	-	-	6,590	-
4a.1.5.9	Component Cooling	-	70	-	-	-	-	-	11	81	-	-	81	-	-	-	-	-	-	2,187	-
4a.1.5.10	Component Cooling - RCA	-	258	10	42	1,013	-	-	224	1,545	1,545	-	-	9,975	-	-	-	-	405,072	6,772	-
4a.1.5.11	Condensate	-	153	-	-	-	-	-	23	176	-	-	176	-	-	-	-	-	-	4,668	-
4a.1.5.12	Condensate - Insulated	-	90	-	-	-	-	-	14	104	-	-	104	-	-	-	-	-	-	2,879	-
4a.1.5.13	Condensate Recovery	-	3	-	-	-	-	-	1	4	-	-	4	-	-	-	-	-	-	113	-
4a.1.5.14	Condensate Recovery - Insulated	-	0	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	15	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
4a1.5.15	Condensate Recovery - Insulated - RCA	-	1	-	-	1	-	-	0	2	2	-	-	6	-	-	-	-	259	14	-
4a1.5.16	Condensate Recovery - RCA	-	9	0	1	18	-	-	5	34	34	-	-	180	-	-	-	-	7,325	233	-
4a1.5.17	Condenser Tube Cleaning	-	29	-	-	-	-	-	4	33	-	-	33	-	-	-	-	-	-	920	-
4a1.5.18	Demineralized Makeup Water	-	4	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	137	-
4a1.5.19	Demineralized Makeup Water - RCA	-	4	-	0	5	-	-	2	12	12	-	-	50	-	-	-	-	2,011	99	-
4a1.5.20	Domestic/Makeup/Service Water	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	215	-
4a1.5.21	Domestic/Makeup/Service Water - RCA	-	16	0	1	23	-	-	8	48	48	-	-	224	-	-	-	-	9,096	398	-
4a1.5.22	Domestic/Makeup/Service Water-Ins	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	19	-
4a1.5.23	Domestic/Makeup/Service Water-Ins - RCA	-	2	-	-	2	-	-	1	4	4	-	-	18	-	-	-	-	733	43	-
4a1.5.24	Electrical - Clean	-	2,734	-	-	-	-	-	410	3,145	-	-	3,145	-	-	-	-	-	-	81,595	-
4a1.5.25	Extraction Steam	-	64	-	-	-	-	-	10	74	-	-	74	-	-	-	-	-	-	1,887	-
4a1.5.26	Extraction Steam - Insulated	-	71	-	-	-	-	-	11	82	-	-	82	-	-	-	-	-	-	2,280	-
4a1.5.27	Feedwater - Insulated	-	97	-	-	-	-	-	14	111	-	-	111	-	-	-	-	-	-	3,077	-
4a1.5.28	Feedwater - Insulated - RCA	-	31	1	4	97	-	-	23	156	156	-	-	958	-	-	-	-	38,896	811	-
4a1.5.29	Fire Protection	-	42	-	-	-	-	-	6	48	-	-	48	-	-	-	-	-	-	1,310	-
4a1.5.30	Fire Protection - Insulated	-	5	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	145	-
4a1.5.31	HVAC	-	201	-	-	-	-	-	30	231	-	-	231	-	-	-	-	-	-	6,814	-
4a1.5.32	Heater Drain & Vents - Insulated	-	170	-	-	-	-	-	26	196	-	-	196	-	-	-	-	-	-	5,363	-
4a1.5.33	Hydrogen Sampling	-	35	1	3	61	-	-	18	117	117	-	-	602	-	-	-	-	24,450	926	-
4a1.5.34	Integrated Leak Rate Testing	-	23	0	2	38	-	-	12	75	75	-	-	371	-	-	-	-	15,053	610	-
4a1.5.35	Main Steam - Insulated	-	155	-	-	-	-	-	23	179	-	-	179	-	-	-	-	-	-	4,827	-
4a1.5.36	Main Steam - Insulated - RCA	-	32	1	4	106	-	-	25	188	188	-	-	1,041	-	-	-	-	42,260	857	-
4a1.5.37	Misc Bulk Gas Supply	-	10	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	346	-
4a1.5.38	Misc Bulk Gas Supply - RCA	-	8	-	0	8	-	-	3	19	19	-	-	77	-	-	-	-	3,134	189	-
4a1.5.39	Miscellaneous	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	33	-
4a1.5.40	Miscellaneous - RCA	-	4	0	1	21	-	-	4	30	30	-	-	206	-	-	-	-	8,368	97	-
4a1.5.41	Post Accident Sampling	-	2	-	-	0	-	-	1	3	3	-	-	4	-	-	-	-	171	70	-
4a1.5.42	Post Accident Sampling - Insulated	-	21	-	0	4	-	-	6	31	31	-	-	38	-	-	-	-	1,539	630	-
4a1.5.43	RCP Oil Collection	-	5	0	1	2	6	-	3	17	17	-	-	20	20	-	-	-	2,616	126	-
4a1.5.44	SGBTF Blowdown - Insulated	-	503	9	40	978	-	-	280	1,811	1,811	-	-	9,633	-	-	-	-	391,210	13,465	-
4a1.5.45	SGBTF Demin - Ins - RCA	-	36	0	2	38	-	-	15	91	91	-	-	378	-	-	-	-	15,331	934	-
4a1.5.46	SGBTF Demin - RCA	-	54	1	5	115	-	-	32	207	207	-	-	1,137	-	-	-	-	46,164	1,403	-
4a1.5.47	SGBTF Miscellaneous - RCA	-	19	0	2	48	-	-	12	82	82	-	-	475	-	-	-	-	19,286	508	-
4a1.5.48	SGBTF Waste Management	-	48	1	4	99	-	-	27	179	179	-	-	972	-	-	-	-	39,461	1,283	-
4a1.5.49	SGBTF Waste Management - Insulated	-	42	0	2	42	-	-	17	103	103	-	-	411	-	-	-	-	16,688	1,116	-
4a1.5.50	Safety Injection	-	160	13	42	655	170	-	188	1,229	1,229	-	-	6,450	621	-	-	-	316,089	4,291	-
4a1.5.51	Safety Injection - Insulated	-	569	30	66	405	541	-	351	1,963	1,963	-	-	3,988	1,924	-	-	-	334,378	14,571	-
4a1.5.52	Sampling	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	236	-
4a1.5.53	Sampling - Insulated	-	9	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	328	-
4a1.5.54	Sampling - Insulated - RCA	-	24	0	1	24	-	-	10	59	59	-	-	234	-	-	-	-	9,508	586	-
4a1.5.55	Sampling - RCA	-	21	0	1	24	-	-	9	55	55	-	-	233	-	-	-	-	9,469	527	-
4a1.5.56	Secondary Side Wet Layup	-	9	-	-	-	-	-	1	11	-	-	11	-	-	-	-	-	-	308	-
4a1.5.57	Secondary Side Wet Layup - Ins	-	12	-	-	-	-	-	2	13	-	-	13	-	-	-	-	-	-	399	-
4a1.5.58	Secondary Side Wet Layup - Ins - RCA	-	10	0	0	12	-	-	4	26	26	-	-	114	-	-	-	-	4,622	235	-
4a1.5.59	Secondary Side Wet Layup - RCA	-	10	0	1	20	-	-	5	36	36	-	-	192	-	-	-	-	7,809	237	-
4a1.5.60	Service & Instrument Air	-	16	-	-	-	-	-	2	18	-	-	18	-	-	-	-	-	-	485	-
4a1.5.61	Service & Instrument Air - Ins	-	8	-	-	-	-	-	1	9	-	-	9	-	-	-	-	-	-	258	-
4a1.5.62	Sodium Hypochlorite	-	36	-	-	-	-	-	5	41	-	-	41	-	-	-	-	-	-	1,137	-
4a1.5.63	Steam Gen Blowdown Cooling	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	387	-
4a1.5.64	Steam Gen Blowdown Cooling - Ins - RCA	-	42	1	5	128	-	-	31	207	207	-	-	1,261	-	-	-	-	51,213	1,093	-
4a1.5.65	Steam Gen Blowdown Cooling - Insulated	-	1	-	-	-	-	-	0	2	-	-	2	-	-	-	-	-	-	47	-
4a1.5.66	Steam Gen Blowdown Cooling - RCA	-	56	2	7	175	-	-	42	282	282	-	-	1,726	-	-	-	-	70,084	1,439	-
4a1.5.67	Steam Generator Blowdown	-	18	0	1	19	-	-	7	45	45	-	-	182	-	-	-	-	7,407	506	-
4a1.5.68	Steam Generator Blowdown - Insulated	-	40	0	2	40	-	-	16	99	99	-	-	398	-	-	-	-	16,170	1,077	-
4a1.5.69	Turbine	-	1	-	-	-	-	-	0	1	-	-	1	-	-	-	-	-	-	29	-
4a1.5.70	Turbine Cooling Water	-	47	-	-	-	-	-	7	54	-	-	54	-	-	-	-	-	-	1,431	-
4a1.5.71	Turbine Cooling Water - Insulated	-	32	-	-	-	-	-	5	37	-	-	37	-	-	-	-	-	-	1,050	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
4a.1.5.72	Turbine Lube Oil & Diesel Oil	-	49	-	-	-	-	-	7	56	-	-	56	-	-	-	-	-	-	1,488	-
4a.1.5	Totals	-	7,004	105	296	4,365	1,288	-	2,342	15,398	10,333	-	5,065	42,993	4,644	-	-	-	2,155,591	202,137	-
4a.1.6	Scaffolding in support of decommissioning	-	563	8	4	83	6	-	156	821	821	-	-	739	37	-	-	-	36,973	17,939	-
4a.1	Subtotal Period 4a Activity Costs	131	16,718	6,207	4,568	8,161	25,087	255	16,292	77,420	72,355	-	5,065	67,920	35,138	3,581	365	560	7,494,556	325,920	1,619
Period 4a Collateral Costs																					
4a.3.1	Process liquid waste	5	-	4	25	-	114	-	35	184	184	-	-	-	-	81	-	-	10,262	16	-
4a.3.2	Small tool allowance	-	197	-	-	-	-	-	30	226	204	-	23	-	-	-	-	-	-	-	-
4a.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	214	21	236	236	-	-	-	-	-	-	-	-	-	-
4a.3.4	Fixed Overhead	-	-	-	-		-	369	55	424	424	-	-	-	-	-	-	-	-	-	-
4a.3	Subtotal Period 4a Collateral Costs	5	197	4	25	-	114	583	141	1,070	1,047	-	23	-	-	81	-	-	10,262	16	-
Period 4a Period-Dependent Costs																					
4a.4.1	Decon supplies	42	-	-	-	-	-	-	11	53	53	-	-	-	-	-	-	-	-	-	-
4a.4.2	Insurance	-	-	-	-	-	-	7	1	7	7	-	-	-	-	-	-	-	-	-	-
4a.4.3	Property taxes	-	-	-	-	-	-	505	51	556	500	-	56	-	-	-	-	-	-	-	-
4a.4.4	Health physics supplies	-	1,310	-	-	-	-	-	328	1,638	1,638	-	-	-	-	-	-	-	-	-	-
4a.4.5	Heavy equipment rental	-	1,703	-	-	-	-	-	255	1,959	1,959	-	-	-	-	-	-	-	-	-	-
4a.4.6	Disposal of DAW generated	-	-	44	45	-	362	-	102	553	553	-	-	-	3,487	-	-	-	69,878	856	-
4a.4.7	Plant energy budget	-	-	-	-	-	-	724	109	832	832	-	-	-	-	-	-	-	-	-	-
4a.4.8	NRC Fees	-	-	-	-	-	-	331	33	364	364	-	-	-	-	-	-	-	-	-	-
4a.4.9	Radwaste Processing Equipment/Services	-	-	-	-	-	-	364	55	418	418	-	-	-	-	-	-	-	-	-	-
4a.4.10	NEI Fees	-	-	-	-	-	-	132	13	146	146	-	-	-	-	-	-	-	-	-	-
4a.4.11	Security Staff Cost	-	-	-	-	-	-	1,187	178	1,365	1,365	-	-	-	-	-	-	-	-	-	59,462
4a.4.12	DOC Staff Cost	-	-	-	-	-	-	10,297	1,545	11,841	11,841	-	-	-	-	-	-	-	-	-	160,251
4a.4.13	Utility Staff Cost	-	-	-	-	-	-	15,508	2,326	17,835	17,835	-	-	-	-	-	-	-	-	-	279,217
4a.4	Subtotal Period 4a Period-Dependent Costs	42	3,014	44	45	-	362	29,054	5,005	37,566	37,511	-	56	-	3,487	-	-	-	69,878	856	498,930
4a.0	TOTAL PERIOD 4a COST	178	19,929	6,255	4,639	8,161	25,563	29,893	21,438	116,056	110,913	-	5,144	67,920	38,625	3,662	365	560	7,574,695	326,792	500,549
PERIOD 4b - Site Decontamination																					
Period 4b Direct Decommissioning Activities																					
4b.1.1	Remove spent fuel racks	342	39	86	72	-	417	-	304	1,261	1,261	-	-	-	2,559	-	-	-	255,900	1,243	-
Disposal of Plant Systems																					
4b.1.2.1	Contmnmt Spray & Refueling Water	-	315	41	101	736	787	-	405	2,385	2,385	-	-	7,247	3,051	-	-	-	545,067	8,670	-
4b.1.2.2	Contmnmt Spray & Refueling Water - Ins	-	128	11	31	166	272	-	131	741	741	-	-	1,639	966	-	-	-	153,170	3,523	-
4b.1.2.3	Electrical - Contaminated	-	331	4	15	314	23	-	138	826	826	-	-	3,097	82	-	-	-	133,182	8,839	-
4b.1.2.4	Electrical - Decontaminated	-	2,253	36	137	2,865	211	-	1,070	6,571	6,571	-	-	28,215	751	-	-	-	1,213,187	58,920	-
4b.1.2.5	Emergency Diesel Generator	-	66	-	-	-	-	-	10	76	-	-	76	-	-	-	-	-	-	2,134	-
4b.1.2.6	Emergency Diesel Generator - Insulated	-	6	-	-	-	-	-	1	7	-	-	7	-	-	-	-	-	-	221	-
4b.1.2.7	Fire Protection - Insulated - RCA	-	3	-	0	8	-	-	2	14	14	-	-	75	-	-	-	-	3,045	91	-
4b.1.2.8	Fire Protection - RCA	-	40	1	4	88	-	-	24	157	157	-	-	869	-	-	-	-	35,292	1,048	-
4b.1.2.9	Fuel Pool	-	86	7	18	66	175	-	79	431	431	-	-	648	624	-	-	-	81,998	2,265	-
4b.1.2.10	Fuel Pool - Insulated	-	50	3	7	19	68	-	34	181	181	-	-	186	241	-	-	-	29,168	1,307	-
4b.1.2.11	HVAC - Contaminated	-	1,253	25	108	2,629	-	-	726	4,741	4,741	-	-	25,898	-	-	-	-	1,051,742	29,359	-
4b.1.2.12	Primary Water	-	111	7	17	173	115	-	86	509	509	-	-	1,699	507	-	-	-	105,593	3,018	-
4b.1.2.13	Primary Water - Insulated	-	2	-	0	0	2	-	1	5	5	-	-	3	7	-	-	-	707	49	-
4b.1.2.14	Radiation Monitoring	-	16	-	0	8	-	-	5	30	30	-	-	78	-	-	-	-	3,172	448	-
4b.1.2.15	Reactor Coolant - Insulated	-	51	2	5	16	46	-	28	148	148	-	-	154	165	-	-	-	21,041	1,414	-
4b.1.2.16	Refueling Equipment	-	105	3	11	135	63	-	64	383	383	-	-	1,334	225	-	-	-	74,367	2,939	-
4b.1.2.17	Service & Instrument Air - Ins - RCA	-	34	0	1	29	-	-	13	77	77	-	-	283	-	-	-	-	11,473	876	-
4b.1.2.18	Service & Instrument Air - RCA	-	21	0	1	17	-	-	8	47	47	-	-	166	-	-	-	-	6,733	542	-
4b.1.2.19	Spent Fuel	-	8	1	1	8	13	-	7	38	38	-	-	80	46	-	-	-	7,322	225	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Burial Volumes Class B Cu. Feet	Burial Volumes Class C Cu. Feet	Burial Volumes GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
4b.1.2.20	Spent Fuel - Ins	-	1	-	0	0	1	-	1	3	3	-	-	1	5	-	-	-	485	27	-
4b.1.2.21	Waste Management	-	509	34	72	530	561	-	361	2,068	2,068	-	-	5,219	2,266	-	-	-	390,764	13,298	-
4b.1.2.22	Waste Management - Insulated	-	941	62	108	108	1,150	-	561	2,930	2,930	-	-	1,063	4,088	-	-	-	409,347	23,344	-
4b.1.2	Totals	-	6,332	238	641	7,914	3,489	-	3,755	22,369	22,286	-	83	77,953	13,023	-	-	-	4,276,854	162,557	-
4b.1.3	Scaffolding in support of decommissioning	-	845	11	7	125	9	-	234	1,231	1,231	-	-	1,109	55	-	-	-	55,460	26,909	-
Decontamination of Site Buildings																					
4b.1.4.1	Reactor	747	628	85	254	320	1,860	-	1,090	4,984	4,984	-	-	3,150	8,556	-	-	-	940,062	35,385	-
4b.1.4.2	Fuel Handling	290	295	4	12	169	32	-	254	1,057	1,057	-	-	1,664	206	-	-	-	87,392	15,183	-
4b.1.4.3	Primary Water Tank & Pump - Contaminated	0	3	3	8	-	42	-	13	69	69	-	-	-	258	-	-	-	25,836	72	-
4b.1.4.4	Reactor Auxiliary	343	121	13	43	101	204	-	276	1,101	1,101	-	-	995	1,268	-	-	-	165,377	12,304	-
4b.1.4.5	Steam Generator Blowdown Treatment	111	24	4	13	3	67	-	81	303	303	-	-	30	412	-	-	-	42,400	3,574	-
4b.1.4	Totals	1,491	1,072	109	330	593	2,205	-	1,714	7,513	7,513	-	-	5,839	10,700	-	-	-	1,261,067	66,518	-
4b.1	Subtotal Period 4b Activity Costs	1,832	8,287	445	1,050	8,632	6,120	-	6,008	32,374	32,291	-	83	84,901	26,337	-	-	-	5,849,281	257,227	-
Period 4b Additional Costs																					
4b.2.1	Curie Surcharge (excluding RPV)	-	-	-	-	-	127	-	32	158	158	-	-	-	-	-	-	-	-	-	-
4b.2.2	Contaminated Soil Remediation	-	211	0	102	-	583	-	214	1,110	1,110	-	-	-	4,706	-	-	-	357,664	5,116	-
4b.2.3	ISFSI license termination	-	244	4	53	-	369	706	267	1,643	-	1,643	-	-	2,031	-	-	-	213,266	4,701	1,280
4b.2	Subtotal Period 4b Additional Costs	-	454	4	155	-	1,079	706	513	2,911	1,268	1,643	-	-	6,737	-	-	-	570,930	9,817	1,280
Period 4b Collateral Costs																					
4b.3.1	Process liquid waste	11	-	10	59	-	187	-	62	328	328	-	-	-	-	188	-	-	23,636	37	-
4b.3.2	Small tool allowance	-	164	-	-	-	-	-	25	189	189	-	-	-	-	-	-	-	-	-	-
4b.3.3	Florida LLRW Inspection Fee	-	-	-	-	-	-	264	26	290	290	-	-	-	-	-	-	-	-	-	-
4b.3.4	Fixed Overhead	-	-	-	-	-	-	799	120	918	918	-	-	-	-	-	-	-	-	-	-
4b.3	Subtotal Period 4b Collateral Costs	11	164	10	59	-	187	1,062	233	1,725	1,725	-	-	-	-	188	-	-	23,636	37	-
Period 4b Period-Dependent Costs																					
4b.4.1	Decon supplies	710	-	-	-	-	-	-	178	888	888	-	-	-	-	-	-	-	-	-	-
4b.4.2	Insurance	-	-	-	-	-	-	14	1	16	16	-	-	-	-	-	-	-	-	-	-
4b.4.3	Property taxes	-	-	-	-	-	-	1,094	109	1,203	1,203	-	-	-	-	-	-	-	-	-	-
4b.4.4	Health physics supplies	-	1,399	-	-	-	-	-	350	1,749	1,749	-	-	-	-	-	-	-	-	-	-
4b.4.5	Heavy equipment rental	-	3,711	-	-	-	-	-	557	4,267	4,267	-	-	-	-	-	-	-	-	-	-
4b.4.6	Disposal of DAW generated	-	-	62	65	-	515	-	145	786	786	-	-	-	4,958	-	-	-	99,365	1,217	-
4b.4.7	Plant energy budget	-	-	-	-	-	-	1,237	186	1,422	1,422	-	-	-	-	-	-	-	-	-	-
4b.4.8	NRC Fees	-	-	-	-	-	-	717	72	789	789	-	-	-	-	-	-	-	-	-	-
4b.4.9	Radwaste Processing Equipment/Services	-	-	-	-	-	-	788	118	906	906	-	-	-	-	-	-	-	-	-	-
4b.4.10	NEI Fees	-	-	-	-	-	-	287	29	315	315	-	-	-	-	-	-	-	-	-	-
4b.4.11	Security Staff Cost	-	-	-	-	-	-	2,095	314	2,410	2,410	-	-	-	-	-	-	-	-	-	105,011
4b.4.12	DOC Staff Cost	-	-	-	-	-	-	21,436	3,215	24,651	24,651	-	-	-	-	-	-	-	-	-	333,297
4b.4.13	Utility Staff Cost	-	-	-	-	-	-	31,417	4,713	36,129	36,129	-	-	-	-	-	-	-	-	-	537,613
4b.4	Subtotal Period 4b Period-Dependent Costs	710	5,110	62	65	-	515	59,064	9,966	75,531	75,531	-	-	-	4,958	-	-	-	99,365	1,217	975,921
4b.0	TOTAL PERIOD 4b COST	2,553	14,016	521	1,328	8,632	7,901	60,853	16,739	112,542	110,815	1,643	83	84,901	38,033	188	-	-	6,543,212	268,298	977,201
PERIOD 4e - License Termination																					
Period 4e Direct Decommissioning Activities																					
4e.1.1	ORISE confirmatory survey	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-
4e.1.2	Terminate license									a											
4e.1	Subtotal Period 4e Activity Costs	-	-	-	-	-	-	120	36	157	157	-	-	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 4e Additional Costs																					
4e.2.1	License Termination Survey	-	-	-	-	-	-	6,573	1,972	8,545	8,545	-	-	-	-	-	-	-	-	165,496	-
4e.2	Subtotal Period 4e Additional Costs	-	-	-	-	-	-	6,573	1,972	8,545	8,545	-	-	-	-	-	-	-	-	165,496	-
Period 4e Collateral Costs																					
4e.3.1	DOC staff relocation expenses	-	-	-	-	-	-	883	132	1,016	1,016	-	-	-	-	-	-	-	-	-	-
4e.3.2	Florida LLRW Inspection Fee	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
4e.3.3	Fixed Overhead	-	-	-	-	-	-	275	41	316	316	-	-	-	-	-	-	-	-	-	-
4e.3	Subtotal Period 4e Collateral Costs	-	-	-	-	-	-	1,158	174	1,332	1,332	-	-	-	-	-	-	-	-	-	-
Period 4e Period-Dependent Costs																					
4e.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4e.4.2	Property taxes	-	-	-	-	-	-	376	38	414	414	-	-	-	-	-	-	-	-	-	-
4e.4.3	Health physics supplies	-	723	-	-	-	-	-	181	904	904	-	-	-	-	-	-	-	-	-	-
4e.4.4	Disposal of DAW generated	-	-	4	4	-	32	-	9	48	48	-	-	-	305	-	-	-	6,105	75	-
4e.4.5	Plant energy budget	-	-	-	-	-	-	114	17	131	131	-	-	-	-	-	-	-	-	-	-
4e.4.6	NRC Fees	-	-	-	-	-	-	247	25	271	271	-	-	-	-	-	-	-	-	-	-
4e.4.7	NEI Fees	-	-	-	-	-	-	99	10	108	108	-	-	-	-	-	-	-	-	-	-
4e.4.8	Security Staff Cost	-	-	-	-	-	-	282	42	325	325	-	-	-	-	-	-	-	-	-	14,143
4e.4.9	DOC Staff Cost	-	-	-	-	-	-	3,903	585	4,488	4,488	-	-	-	-	-	-	-	-	-	57,357
4e.4.10	Utility Staff Cost	-	-	-	-	-	-	4,509	676	5,186	5,186	-	-	-	-	-	-	-	-	-	72,679
4e.4	Subtotal Period 4e Period-Dependent Costs	-	723	4	4	-	32	9,530	1,583	11,875	11,875	-	-	-	305	-	-	-	6,105	75	144,179
4e.0	TOTAL PERIOD 4e COST	-	723	4	4	-	32	17,382	3,765	21,909	21,909	-	-	-	305	-	-	-	6,105	165,571	144,179
PERIOD 4 TOTALS		2,731	34,667	6,779	5,971	16,793	33,496	108,128	41,942	250,507	243,637	1,643	5,227	152,821	76,962	3,850	365	560	14,124,010	760,661	1,621,929
PERIOD 5b - Site Restoration																					
Period 5b Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
5b.1.1.1	Reactor	-	6,089	-	-	-	-	-	910	6,980	-	-	6,980	-	-	-	-	-	-	119,210	-
5b.1.1.2	Fuel Handling	-	835	-	-	-	-	-	125	960	-	-	960	-	-	-	-	-	-	15,652	-
5b.1.1.3	Intake Structure & CWS	-	617	-	-	-	-	-	93	710	-	-	710	-	-	-	-	-	-	12,136	-
5b.1.1.4	Miscellaneous Structures	-	3,005	-	-	-	-	-	451	3,456	-	-	3,456	-	-	-	-	-	-	62,266	-
5b.1.1.5	Primary Water Tank & Pump - Contaminated	-	2	-	-	-	-	-	0	3	-	-	3	-	-	-	-	-	-	48	-
5b.1.1.6	Reactor Auxiliary	-	1,445	-	-	-	-	-	217	1,662	-	-	1,662	-	-	-	-	-	-	25,872	-
5b.1.1.7	Steam Generator Blowdown Treatment	-	402	-	-	-	-	-	60	462	-	-	462	-	-	-	-	-	-	7,829	-
5b.1.1.8	Turbine	-	1,256	-	-	-	-	-	188	1,444	-	-	1,444	-	-	-	-	-	-	28,234	-
5b.1.1.9	Turbine Pedestal	-	612	-	-	-	-	-	92	704	-	-	704	-	-	-	-	-	-	8,825	-
5b.1.1	Totals	-	14,244	-	-	-	-	-	2,137	16,380	-	-	16,380	-	-	-	-	-	-	280,072	-
Site Closeout Activities																					
5b.1.2	Remove Rubble	-	2,428	-	-	-	-	-	364	2,793	-	-	2,793	-	-	-	-	-	-	15,828	-
5b.1.3	Grade & landscape site	-	849	-	-	-	-	-	127	976	-	-	976	-	-	-	-	-	-	2,525	-
5b.1.4	Final report to NRC	-	-	-	-	-	-	64	10	73	73	-	-	-	-	-	-	-	-	-	668
5b.1	Subtotal Period 5b Activity Costs	-	17,521	-	-	-	-	64	2,638	20,222	73	-	20,149	-	-	-	-	-	-	298,424	668
Period 5b Additional Costs																					
5b.2.1	Concrete Processing	-	438	-	-	-	-	2	66	503	-	-	503	-	-	-	-	-	-	2,978	-
5b.2.2	Circulating Water Diffuser Isolation	-	124	-	-	-	-	-	19	143	-	-	143	-	-	-	-	-	-	1,653	-
5b.2.3	ISFSI site restoration	-	1,338	-	-	-	-	21	204	1,562	-	1,562	-	-	-	-	-	-	-	7,520	80
5b.2	Subtotal Period 5b Additional Costs	-	1,898	-	-	-	-	23	288	2,208	-	1,562	646	-	-	-	-	-	-	12,151	80
Period 5b Collateral Costs																					
5b.3.1	Small tool allowance	-	189	-	-	-	-	-	28	218	-	-	218	-	-	-	-	-	-	-	-
5b.3	Subtotal Period 5b Collateral Costs	-	189	-	-	-	-	-	28	218	-	-	218	-	-	-	-	-	-	-	-

Table D-2
St. Lucie Nuclear Plant, Unit 2
SAFSTOR Decommissioning Cost Estimate
(Thousands of 2004 Dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes: Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 5b Period-Dependent Costs																					
5b.4.1	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5b.4.2	Property taxes	-	-	-	-	-	-	934	93	1,027	-	-	1,027	-	-	-	-	-	-	-	-
5b.4.3	Heavy equipment rental	-	4,301	-	-	-	-	-	645	4,946	-	-	4,946	-	-	-	-	-	-	-	-
5b.4.4	Plant energy budget	-	-	-	-	-	-	141	21	162	-	-	162	-	-	-	-	-	-	-	-
5b.4.5	Security Staff Cost	-	-	-	-	-	-	700	105	805	-	-	805	-	-	-	-	-	-	-	35,074
5b.4.6	DOC Staff Cost	-	-	-	-	-	-	10,538	1,581	12,118	-	-	12,118	-	-	-	-	-	-	-	153,937
5b.4.7	Utility Staff Cost	-	-	-	-	-	-	6,957	1,044	8,001	-	-	8,001	-	-	-	-	-	-	-	99,377
5b.4	Subtotal Period 5b Period-Dependent Costs	-	4,301	-	-	-	-	19,269	3,489	27,059	-	-	27,059	-	-	-	-	-	-	-	288,389
5b.0	TOTAL PERIOD 5b COST	-	23,909	-	-	-	-	19,355	6,443	49,707	73	1,562	48,071	-	-	-	-	-	-	310,575	289,136
PERIOD 5 TOTALS		-	23,909	-	-	-	-	19,355	6,443	49,707	73	1,562	48,071	-	-	-	-	-	-	310,575	289,136
TOTAL COST TO DECOMMISSION		6,737	65,058	7,525	7,174	20,997	37,355	381,327	89,890	616,063	521,517	40,730	53,816	179,838	103,866	6,106	365	560	16,267,370	1,152,915	5,220,013

TOTAL COST TO DECOMMISSION WITH 17.08% CONTINGENCY:	**$616,063**	**thousands of 2004 dollars**
TOTAL NRC LICENSE TERMINATION COST IS 84.65% OR:	**$521,517**	**thousands of 2004 dollars**
SPENT FUEL MANAGEMENT COST IS 6.61% OR:	**$40,730**	**thousands of 2004 dollars**
NON-NUCLEAR DEMOLITION COST IS 8.74% OR:	**$53,816**	**thousands of 2004 dollars**
TOTAL RADWASTE VOLUME BURIED (EXCLUDING GTCC):	**110,338**	**cubic feet**
TOTAL GREATER THAN CLASS C RADWASTE VOLUME GENERATED:	**560**	**cubic feet**
TOTAL SCRAP METAL REMOVED:	**42,761**	**tons**
TOTAL CRAFT LABOR REQUIREMENTS:	**1,152,915**	**man-hours**

End Notes:
n/a - indicates that this activity not charged as decommissioning expense.
a - indicates that this activity performed by decommissioning staff.
0 - indicates that this value is less than 0.5 but is non-zero.
a cell containing " - " indicates a zero value

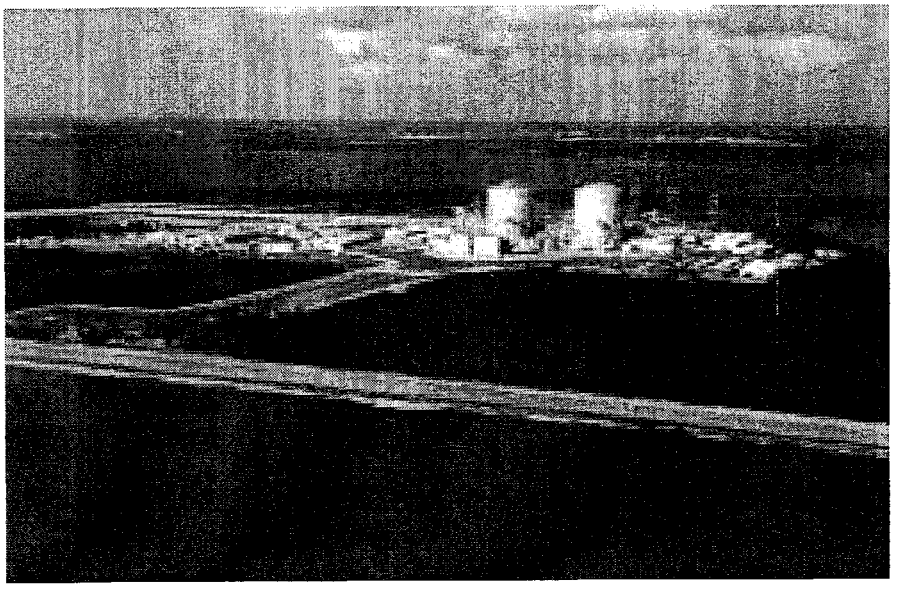
SECTION 13

COMPARISON REPORT
Comparative Analysis of Cost Studies
1999 & 2005 Cost Studies

COMPARISON REPORT 1999 - 2004

for the

ST. LUCIE NUCLEAR PLANT, UNITS 1 AND 2



prepared for the

Florida Power & Light Company

prepared by

TLG Services, Inc.
Bridgewater, Connecticut

November 2005

APPROVALS

Project Manager	William A. Cloutier, Jr.	11/16/2005
	William A. Cloutier, Jr.	**Date**
Project Engineer	Mark S. Houghton	11/16/05
	Mark S. Houghton	**Date**
Technical Manager	Francis W. Seymore	11/16/05
	Francis W. Seymore	**Date**
Quality Assurance Manager	Thomas S. LaGuardia/for TLW	11/16/05
	Thomas L. Williamson	**Date**

TABLE OF CONTENTS

TABLES

REVISION LOG

No.	CRA No.	Date	Item Revised	Reason for Revision
0		11-16-2005		Original Issue

SUMMARY

This document provides comparative discussion on the decommissioning cost estimate prepared for the St. Lucie Nuclear Plant (St. Lucie) in 1999[1] and updated in 2005[2] by TLG Services, Inc. (TLG). The estimates described in this document were constructed for a prompt decommissioning scenario, following the scheduled cessation of operations, recognizing that there is a seven year offset in the scheduled shutdown dates. The scope of the estimates is generally consistent, including cost elements for license termination, spent fuel management and site restoration activities.

The cost models were generated in 1998 and 2004 dollars, respectively. For purposes of comparison, the two estimates are referred to by their financial bases. The 2004, or current estimate, was developed using the basic inventory and plant design information from the 1998 or previous cost model. The data, estimating assumptions and site-specific considerations were reviewed for the 2004 analysis. The cost model was modified where new information was available, updated site-specific information was obtained, or experience from ongoing decommissioning programs justified such changes.

Overall, the estimate to decommission St. Lucie increased approximately 24% over the six-year period (1998-2004 financial years). As can be seen in Table 1, cost elements that increased include program management ($107.1 million), spent fuel management ($36.3 million), component and material removal ($23.1 million) and off-site waste processing ($20.9 million).

A significant decrease in low-level radioactive waste disposal costs ($50.9 million) was realized by sending the waste to a lower-cost, although more distant disposal site. Combined with savings in fixed overhead and decontamination, the overall cost increase in decommissioning was mitigated by approximately $67 million.

The rationale for specific changes in several major cost centers is discussed in more detail within the following narrative. Comparisons are focused on permutations in the technical work scope and modifications to assumptions that have affected the cost of decommissioning (inflationary effects are generally ignored for purposes of this analysis). Cost element discussions are arranged in the order of greatest impact to least, either positive or negative.

---

1 "Decommissioning Cost Study for the St. Lucie Plant, Units 1 and 2," TLG Document F02-1297-002, Rev. 1, dated October 1999.

2 "Decommissioning Cost Analysis for the St. Lucie Nuclear Plant, Units 1 and 2," TLG Document F02-1512-002, Rev. 0, dated October 2005.

COMPARATIVE ANALYSIS

TLG completed a decommissioning cost analysis for St. Lucie in 1999. The analysis provided Florida Power and Light (FPL), the majority owner and operator of the nuclear units, with the projected costs (in 1998 dollars) to completely decontaminate and dismantle the station following the normal cessation of plant operations. For purposes of this comparison, this analysis is referred to as the 1998 estimate or previous analysis.

In 2005, TLG updated the cost analysis for FPL. The current analysis uses the physical plant inventory and design information from the previous analysis. This data was reviewed, along with the assumptions and other site-specific considerations, and modified or updated where new information was available or experience from ongoing decommissioning programs justified such changes. Since the update relied upon 2004 economic data, the analysis is referred to as the 2004 estimate or current analysis.

Generally, escalation of the various cost components in a decommissioning analysis (with the exception of those costs associated with radioactive waste disposal), follows "standard" cost indices. However, such indices can only be applied successfully to a static model, *i.e.*, where the bases against which the indices are applied have not undergone significant change. In the period between the last two analyses (the 1998 and 2004 financial years), new cost elements have been added and older cost elements revised. With this in mind, the following discussion encompasses the major areas of difference between the two estimates.

In 1999, the estimate to promptly decommission St. Lucie was estimated at approximately $838.7 million (in 1998 dollars). The comparable cost in 2005 is $1.037.6 billion (in 2004 dollars). Areas of change in the two estimates are shown in Table 1.

The overall decommissioning scope of the current cost estimate has not significantly changed from that presented in 1998, with one exception. The current estimate incorporates an extended operating life, 20 years longer than previously assumed. While activation levels in the reactor vessel increase with time, the impact on the remotely performed activities associated with the disposition is relatively small. However, the longer operating life has a more significant impact on the costs associated with spent fuel management. In particular, the ISFSI operating period is longer in the 2004 extended life scenario with the larger inventory of spent fuel.

As described earlier, the majority of the 24% increase in the cost over the six-year period can be attributed to corresponding increases in the cost centers associated with program management, spent fuel, component/equipment removal and off-site waste processing. While the scope may not have changed, there are differences in the base assumptions between the two studies. These differences are identified in the discussion of the following cost elements.

1. Program Management (Staffing)

   The increase in the cost of program management ($107.1 million) is primarily due to a corresponding increase in the size of the organization designated to manage/oversee the decommissioning project. The increase in personnel is particularly significant during the preparation phase with between 65-75 more utility personnel on the 2004 staff during the initial phase and 14 additional Decommissioning Operations Contractor (DOC) staff added to the organization. Maximum peak staffing for the various decommissioning periods are identified in Table 2.

   The decision to increase the organization for the 2004 analyses was based upon several factors, including current field experience at facilities undergoing decommissioning. In addition, the previous analyses assumed an instantaneous reduction of the operating organization immediately following the cessation of plant operations. However, during this transitional period, a majority of the plant systems will remain operational. Preparations for decommissioning will still require many of the other plant services to be functional and the support of a significant portion of the current workforce. Preparations also include the drain-down of non-essential plant systems, processing of operating inventories, decontamination of the selected plant systems to reduce working area dose rates, remediation of any hazardous and toxic wastes, as well as a detailed characterization of the plant facilities and surrounding environs. Therefore, to support these activities, the reduction of plant personnel is more gradual in the 2004 analysis during the transition period.

   Labor costs increased over the six year period, with salaries rising from 14% to 32% for the various categories of personnel within the decommissioning organization, *e.g.*, clerical, supervisory, financial, technical and engineering. Overhead costs added to the increase, rising approximately 14% over the six year period.

   Direct costs (wages and benefits) are a significant factor in the overall expense to manage a decommissioning program. However, the duration over

which they are incurred can be just as important. For example, spent fuel remains on site for an additional nine years in the 2004 study (ISFSI Operations). While the caretaking staff in relatively small during this phase, it does add to the increase in program management costs (as well as other period-dependent expenses) over this time period.

The demolition of site structures and the restoration of the site were also rescheduled in the 2004 analysis. The 2004 analysis assumes that the reactor buildings are dismantled in series rather than in parallel, as was assumed in 1998. The period-dependent costs, *e.g.*, staffing, heavy equipment, taxes and fees, were the primary contributors to the increased cost of Period 3 due to the additional eight month duration. A comparison of durations for the individual decommissioning phases is provided in Table 3.

There was a change to the 2004 cost model that did have a mitigating effect on the increased cost of program management. The 1998 cost model assumed that Unit 1 would be the lead decommissioning unit. Preparations were scheduled to start approximately 18 months prior to the shutdown of Unit 2. Decommissioning would proceed until the disposition of the reactor vessel was complete, at which time, Unit 2 would become the lead unit. This scenario implicitly assumed that decommissioning preparations for Unit 1 would be supported by the staff of the operating unit, Unit 2. Recent experience indicates that it is unlikely that Unit 2 will have the additional resources during this period to support Unit 1. As such, the current model has been revised to keep Unit 1 in safe-storage longer, until Unit 2 is shutdown and decommissioning operations are well underway. With Unit 2 as the lead, the 55 month delay period needed to sequence license termination activities was removed from the Unit 1 schedule in the 2004 cost model. This scenario is viewed to be more cost effective and practical, with the seven year offset in shutdown dates.

2. Low-Level Radioactive Waste Disposal

The 1998 cost model assumed that all of the low-level radioactive waste requiring controlled disposal would be sent to the Barnwell, South Carolina facility. A disposal rate of $4.40 per pound was used for estimating disposal costs. The equivalent rate in the 2004 cost model for the Barnwell facility is $5.43 per pound.

The 2004 cost model assumes that all of the low-level radioactive waste requiring controlled disposal is now sent to the lower cost Envirocare facility. Class A material is buried at Envirocare at unit costs ranging from $163 to

$267 per cubic foot ($2 to $3 per pound based upon an average weight density of 85 pounds per cubic foot), including containerized waste and other large components, *e.g.*, steam generators, reactor coolant pump motors, miscellaneous steel, metal siding, scaffolding, and structural steel. This change in the waste management model has produced a $50.9 million or 29% reduction in the 2004 cost component for low-level radioactive disposal.

It should be noted that Envirocare cannot currently accept the more highly radioactive waste (10 CFR §61 Class B and C). Therefore, for estimating purposes, Barnwell rates are used in the 2004 cost model.

3. Spent Fuel Management (ISFSI Related)

For purposes of generating a comprehensive post-shutdown cost, spent fuel generated over the operating life of St. Lucie is assumed to be stored at the site until the DOE can complete the transfer of assemblies to its geologic repository. The projected storage period is based upon the latest information available from the DOE at the time the cost model was assembled, operating data for the nuclear unit, and some historical perspective on this ongoing government program to develop a national waste repository.

The current analysis assumes that the high-level waste repository will initiate operations in 2015, consistent with that assumed in the previous analysis. With the increased operating period, however, the length of time estimated to be required before the DOE can complete the transfer of spent fuel to its geologic repository has been revised from nine years to approximately 17 years after the cessation of Unit 2 operations.

The 1998 analysis allocated a portion of the capital expense to construct the ISFSI to decommissioning, based upon the number of casks required to off-load the pools once the units were shut down. This presumed that the ISFSI would be constructed during plant operations to accommodate the maximum number of storage casks for operations and/or decommissioning. The cost attributed to decommissioning was included in the anticipated years of expenditure, *i.e.*, during plant operations, years 2000 to 2004. By comparison, the 2004 estimate includes only a nominal cost for ISFSI pad expansion and only during the decommissioning period. *i.e.*, there are no pre-decommissioning costs included in the current analysis with the additional 20 years of plant operations.

The process to load the spent fuel storage canisters, seal, drain and dry the canisters, and place the canisters into a transfer or transport cask was not

specifically defined in the 1998 cost model. The activities were assumed to be performed by the staff at no additional cost to the project. Subsequent experience at sites involved in building and operating independent dry fuel storage facilities has provided useful information on the additional costs incurred in accomplishing these tasks. As such, the 2004 cost model includes separately identified and additional costs for the handling and packaging activities, as well as the operation of the spent fuel pool during the transfer process. A unit cost of $290,000 was included in the current analyses for the transfer of each fuel canister from the pool to the ISFSI or $145,000 from the pool into the DOE transport cask. Campaign costs of $175,000 and $350,000 were added for pool to the DOE or ISFSI transfers, respectively. An additional transfer cost of $15,000 per canister was allocated for transfer of the canisters from the ISFSI to a DOE transport cask.

4. Removal

Contract labor is used to decontaminate, remove, and package the plant inventory, as well as to support the dismantling and demolition of the physical structures. The dismantling process is labor-intensive and the cost model assumes that a common laborer performs a majority of the required tasks, with support from the various skilled trades. Wage rates for the laborer and craftsman increased approximately 60% and 51% respectively over the six year period, as shown in Table 4. The rates increases offset any decrease in hours expended created by productivity improvements and/or other efficiencies. The net result was an increase of $23.1 million in this category.

As seen in Table 4, there is a significant decrease in the labor/craft hours reported in the 2004 estimates. Since a significant portion of the waste stream (including contaminated as well as potentially contaminated material) is now routed for off-site processing rather than for controlled disposal, the inventory can be removed in larger quantities, i.e., instead of being sized-reduced to accommodate disposal containers. Therefore, fewer hours are required to remove the same inventory, *e.g.*, piping that involves multiple, repetitive activities.

Decontamination hours were also reduced or eliminated for non-contaminated material located in the RCA. This material is designated for off-site processing in the 2004 estimates rather than attempting to free-release the components in-place, as was the previous assumption.

5. Off-Site Waste Processing

Several factors contributed to the increase in off-site waste processing costs, most importantly, a larger volume of material designated for processing and a higher processing fee. Significant changes were made in the disposition of potentially contaminated equipment and components as well as in selected secondary side systems. Material from the radiological-controlled area that was targeted for in-place decontamination and release in the 1998 cost model is now treated off-site, consistent with current industry experience. Primary to secondary side leakage is recognized in the latest estimate with a portion of the turbine-condenser system designated for off-site processing. Adding to the increase, the unit cost to process and condition waste at a centralized off-site facility increased from $1.20 in 1998 to $2.50 a pound in the 2004 study. While there were some savings from the lower cost of direct disposal, *e.g.*, for the spent fuel racks, and the avoided cost of decontamination, the overall cost of waste processing increased $20.9 million over the six year period.

6. Property Taxes

Property tax information included within the 1998 estimate reflected a continuing, although annually decreasing, tax obligation over the life of the decommissioning program. The tax model was updated by FPL for use in the 2004 estimate, with taxes on existing plant structures and equipment reduced over the phase in which they are removed. However, as with several other period-dependent costs, taxes were incurred over the additional nine years of ISFSI operations. The changes in the tax model resulted in an increase of $19.2 million from the 1998 cost model.

7. Spent Fuel Pool Isolation

Costs to isolate the spent fuel pools were added to the 2004 cost model. The isolation cost includes the engineering, facility modifications, and the capital improvements necessary to segregate the pool areas and reduce the protected boundary, so that decommissioning operations can proceed expeditiously. The 2004 value for this cost element added $16.0 million to the total cost of decommissioning.

8. Transportation

The 1998 cost model assumed that all of the low-level radioactive waste requiring controlled disposal would be sent to a burial facility in Barnwell, South Carolina. Savings in waste management were realized in the 2004 cost

model by using the lower-cost, although more distant Envirocare facility, located in Clive, Utah. As such, the increase in transportation costs is due to a combination of higher tariffs, fuel surcharges and the increase in mileage, *i.e.*, from South Carolina to Utah. It should be noted that a portion of the $13.5 million increase would have been incurred even if the burial destination had remained the same.

9. Fixed Overhead

Corporate overhead charges were reduced with the corresponding reduction in the decommissioning schedule, particularly for Unit 1. Rescheduling the decommissioning sequence yielded an $11 million savings in the 2004 cost.

10. Insurance and Regulatory Fees

The application of nuclear and property insurance premiums during decommissioning was revised in the 2004 cost model to conform with the more recent and proposed NRC guidance on "minimum" insurance coverage during decommissioning. The overall effect of the proposed NRC guidance was to increase the monthly insurance costs during the early phases of decommissioning, and lower them during the latter stages of the project. The net effect was an increase of $5.4 million in the 2004 cost element.

The 2004 study includes only NRC fees in this cost center, which have increased from $5.4 million to $6.4 million due to a restructured NRC fee schedule.

The 1998 cost model applied ISFSI licensing fees throughout the decommissioning program. With a revision in the NRC's fee structure, ISFSI fees are only incurred in the 2004 cost model once the operating license(s) have been terminated. This change produced a savings of approximately $1.5 million.

Other contributors to the overall increase in fees in the 2004 estimate include the addition of INPO fees during the preparation phase of decommissioning and NEI membership fees during the entire decommissioning program. The net result was a $13.4 million increase in this cost element.

11. Energy

The increase in energy costs is attributable to a revision in the methodology in calculating energy consumption. Actual usage data, provided from ongoing

decommissioning projects, was used to project a similar consumption model for St. Lucie. The slight increase (10%) in electrical purchase price from the previous analysis also contributed to the $5.4 million increase.

12. Decontamination

The decrease in the decontamination cost as report in the 2004 cost model is a result of more material being sent to an off-site processing center or for direct disposal, as opposed to being treated on site (as was assumed in the 1998 cost model). Off-site processing is generally more economical and efficient since the processing facilities are designed to handle the large volumes anticipated to be generated from decommissioning and do not have to contend with the other sources of background activity in the plant in the process required to release material for unrestricted use, in particular the sensitive surveys. This change produced a $5.1 million savings from the 1998 cost element.

13. Packaging

There are several factors contributing to increased ($4.7 million) packaging costs. Increases in labor and materials, as described previously, were contributors. In addition, the packaging costs for the steam generators were recalculated and redistributed (previous studies reported some "packaging" expenses as "removal" costs) which added to the reported increase.

14. Site Characterization and License Termination Surveys

Survey costs increased commensurate with the increase in craft labor. However, savings were realized in the license termination survey due to greater assumed efficiencies in the performance of exterior surveys and less expensive sample testing, which was performed by an off-site laboratory in the 1998 analysis. The net result was a $4.6 million increase in this cost element.

TABLE 1
COST COMPARISON
1998 vs. 2004

Cost Center	1998 ($1000s)	2004 ($1000s)	Delta ($1000s)	% Change	Annual Change
Program Management [1]	344,124	451,229	107,105	31.1	5.2
Waste Disposal	176,902	126,035	(50,867)	-28.8	-4.8
Spent Fuel Management	35,393	71,688	36,295	102.5	17.1
Removal	137,124	160,232	23,107	16.9	2.8
Off-site Waste Processing	15,914	36,809	20,896	131.3	21.9
Property Taxes	11,514	30,696	19,181	166.6	27.8
Spent Fuel Pool Isolation	0	16,020	16,020		
Transportation	8,180	21,716	13,536	165.5	27.6
Fixed Overhead	19,653	8,661	(10,992)	-55.9	-9.3
Insurance and Regulatory Fees	20,715	34,155	13,441	64.9	10.8
Energy	7,893	13,289	5,396	68.4	11.4
Decontamination	28,046	22,958	(5,087)	-18.1	-3.0
Packaging	17,953	22,679	4,726	26.3	4.4
Characterization/Surveys	15,255	19,878	4,623	30.3	5.1
Total [2]	**838,667**	**1,037,572**	**198,906**	**23.7**	**4.0**

1 Includes utility and contractor organizations, engineering and security
2 Columns may not add due to rounding

TABLE 2
DECON DECOMMISSIONING STAFFING COMPARISON

		1998 Peak Manloading (persons)	1998 Peak Cost/Month ($1000s)	2004 Peak Manloading (persons)	2004 Peak Cost/Month ($1000s)
Unit 1					
Period 1	Utility	134	988	210	2,009
	DOC	0	0	0	0
Period 2	Utility	52	371	40	367
	DOC	0	0	0	0
Period 3	Utility	142	1,033	120	1,152
	DOC	47	445	45	484
Period 4	Utility	150	1,071	134	1,296
	DOC	52	475	76	849
Period 5	Utility	9	57	14	147
	DOC	18	165	24	265
Unit 2					
Period 1	Utility	142	1,033	211	2,021
	DOC	47	445	61	709
Period 2	Utility	150	1,071	149	1,454
	DOC	52	475	76	849
Period 3	Utility	33	270	32	383
	DOC	37	332	40	470

TABLE 3
PROJECT SCHEDULE COMPARISON
(months)

	1998	2004
Unit 1		
Period 1: Dormancy Preparations	12	18
Period 2: Dormancy	55	83
Period 3: Decommissioning Preparations	18	18
Period 4: Decommissioning	95 *	48
Period 5: Site Restoration	14	22
ISFSI Operations	2	109
ISFSI Decommissioning and Demolition	6	6
TOTAL	**202**	**304**
Unit 2		
Period 1: Preparations	18	18
Period 2: Decommissioning	76	63
Period 3: Site Restoration	14	22
ISFSI Operations	2	109
ISFSI Decommissioning and Demolition	6	6
TOTAL	**117**	**219**

* Includes 52 month delay period to sequence license termination activities at the site

TABLE 4
LABOR WAGES AND PERSON-HOUR COMPARISON

Category	1998	2004	Change
	($/hour)	**($/hour)**	**(%)**
Laborer	16.18	25.90	60
Craftsman	26.93	40.76	51
Foreman	29.51	41.74	41
General Foreman	30.95	44.14	43
	(hours)	**(hours)**	**(%)**
Laborer/Craft	2,602,224	2,162,312	-17

CONCLUSION

The largest differential in the costs reported to decommission St. Lucie in 1998 and 2004 were in the area of Program Management (+$107.1 million), Low Level Radioactive Waste Disposal (-$50.9 million), Spent Fuel Management/ISFSI Related (+36.3 million), Component/Equipment Removal (+$23.1 million), and Off-Site Waste Processing (+$20.9 million). Program Management costs increased with the addition of personnel to the organizations designated to manage/oversee the decommissioning project, an increase in salaries and other compensation, and the longer fuel storage schedule. Low-level radioactive waste disposal decreased in the 2004 estimate with the use of a lower cost disposal site, *i.e.*, the Envirocare facility. Additional cost elements contributed to the reported increase in the "ISFSI Related" costs such as cask transfer and closure costs that were not specifically identified in 1998. Higher labor costs increased component and equipment removal, despite increased efficiencies. Off-site waste processing costs increased with the additional volume of material designated for recovery and low-level radioactive waste disposal costs declined.

Overall, the total cost to decommission the St. Lucie units increased 23.7% over the six year period. The value is somewhat deceiving since it represents a composite of elements that increased as well as decreased. As such, the 4% annual growth may not be indicative of future increase in the decommissioning cost.