

## 9.0 Summary and Conclusions

By letter dated November 29, 2001, the Florida Power and Light Company (FPL) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) to renew the operating licenses (OLs) for the St. Lucie Units 1 and 2 nuclear power plants for an additional 20-year period (FPL 2001a). If the OLs are renewed, State regulatory agencies and FPL will ultimately decide whether the plant will continue to operate based on factors such as the need for power or other matters within the State's jurisdiction or the purview of the owners. If the OLs are not renewed, then the plant must be shut down at or before the expiration of the current OLs, which expire on March 1, 2016, for Unit 1, and April 6, 2023, for Unit 2.

Section 102 of the National Environmental Policy Act (NEPA) (42 USC 4321) requires an environmental impact statement (EIS) for major Federal actions that significantly affect the quality of the human environment. The NRC has issued regulations implementing Section 102 of NEPA in 10 CFR Part 51. Part 51 identifies licensing and regulatory actions that require an EIS. In 10 CFR 51.20(b)(2), the Commission requires preparation of an EIS or a supplement to an EIS for renewal of a reactor OL; 10 CFR 51.95(c) states that the EIS prepared at the OL renewal stage will be a supplement to the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2 (NRC 1996, 1999).<sup>(a)</sup>

Upon acceptance of the FPL application, the NRC began the environmental review process described in 10 CFR Part 51 by publishing a notice of intent to prepare an EIS and conduct scoping (67 FR 9333 [NRC 2002a]) on February 28, 2002. The staff visited the St. Lucie site in April 2002 and held public scoping meetings on April 3, 2002, in Port St. Lucie, Florida (NRC 2002b). The staff reviewed the FPL Environmental Report (ER; FPL 2001b), compared it to the GEIS, consulted with other agencies, and conducted an independent review of the issues following the guidance set forth in NUREG-1555, Supplement 1, *The Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal* (NRC 2000). The staff also considered the public comments received during the scoping process for preparation of the draft Supplemental Environmental Impact Statement (SEIS) for St. Lucie Units 1 and 2. The public comments received during the scoping process that were considered to be within the scope of the environmental review are provided in Appendix A, Part I, of this SEIS.

In December 2002, the staff held two public meetings in Port St. Lucie, Florida, to describe the preliminary results of the NRC environmental review, answer questions on the staff's preliminary analysis, and provide members of the public with information to assist them in

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(a) The GEIS was originally issued in 1996. Addendum 1 to the GEIS was issued in 1999. Hereafter, all references to the "GEIS" include the GEIS and its Addendum 1.

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| formulating their comments on the draft SEIS. All comments received on the draft SEIS were considered by the staff in developing the final SEIS. These comments are addressed in Appendix A, Part II, of this final SEIS.

| This SEIS includes the NRC staff's analysis that considers and weighs the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and mitigation measures available for reducing or avoiding adverse effects. It also includes the staff's recommendation regarding the proposed action.

The NRC has adopted the following statement of purpose and need for license renewal from the GEIS:

The purpose and need for the proposed action (renewal of an operating license) is to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs, as such needs may be determined by State, utility, and, where authorized, Federal (other than NRC) decisionmakers.

The goal of the staff's environmental review, as stated in 10 CFR 51.95(c)(4) and the GEIS, is to determine

...whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

Both the statement of purpose and need and the evaluation criterion implicitly acknowledge that there are factors, in addition to license renewal, that will ultimately determine whether an existing nuclear power plant continues to operate beyond the period of the current OL.

NRC regulations [10 CFR 51.95(c)(2)] contain the following statement regarding the content of SEISs prepared at the license renewal stage:

The supplemental environmental impact statement for license renewal is not required to include discussion of need for power or the economic costs and economic benefits of the proposed action or of alternatives to the proposed action except insofar as such benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation. In addition, the supplemental environmental impact statement prepared at the license renewal stage need not discuss other issues not related to the environmental effects of the proposed action and the alternatives, or any aspect of the storage of spent fuel for the facility

within the scope of the generic determination in § 51.23(a) and in accordance with § 51.23(b).<sup>(a)</sup>

The GEIS contains the results of a systematic evaluation of the consequences of renewing an OL and operating a nuclear power plant for an additional 20 years. The staff evaluated 92 environmental issues in the GEIS using the NRC's three-level standard of significance – SMALL, MODERATE, or LARGE – developed using the Council on Environmental Quality guidelines. The following definitions of the three significance levels are set forth in the footnotes to Table B-1 of 10 CFR Part 51, Subpart A, Appendix B:

SMALL – Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE – Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE – Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

For 69 of the 92 issues considered in the GEIS, the staff analysis in the GEIS shows the following:

- (1) The environmental impacts associated with the issue have been determined to apply either to all plants or, for some issues, to plants having a specific type of cooling system or other specified plant or site characteristic.
- (2) A single significance level (i.e., SMALL, MODERATE, or LARGE) has been assigned to the impacts (except for collective offsite radiological impacts from the fuel cycle and from high-level waste [HLW] and spent fuel disposal).
- (3) Mitigation of adverse impacts associated with the issue has been considered in the analysis, and it has been determined that additional plant-specific mitigation measures are likely not to be sufficiently beneficial to warrant implementation.

These 69 issues were identified in the GEIS as Category 1 issues. In the absence of new and significant information, the staff relied on conclusions as amplified by supporting information in

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(a) The title of 10 CFR 51.23 is "Temporary storage of spent fuel after cessation of reactor operations—generic determination of no significant environmental impact."

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the GEIS for issues designated Category 1 in Table B-1 of 10 CFR Part 51, Subpart A, Appendix B.

Of the 23 issues that do not meet the criteria set forth above, 21 are classified as Category 2 issues requiring analysis in a plant-specific supplement to the GEIS. The remaining two issues, environmental justice and chronic effects of electromagnetic fields, were not categorized. Environmental justice was not evaluated on a generic basis and must also be addressed in a plant-specific supplement to the GEIS. Information on the chronic effects of electromagnetic fields was not conclusive at the time the GEIS was prepared.

This SEIS documents the staff's evaluation of all 92 environmental issues considered in the GEIS. The staff considered the environmental impacts associated with alternatives to license renewal and compared the environmental impacts of license renewal and the alternatives. The alternatives to license renewal that were considered include the no-action alternative (not renewing the OLS for St. Lucie Units 1 and 2, not replacing the power produced by St. Lucie Units 1 and 2, and decommissioning both units) and not renewing the OLS for St. Lucie Units 1 and 2 and replacing their power production with alternative methods of power generation. These alternatives were evaluated assuming that the replacement power generation plant is located at potential power plant sites identified in FPL's *Ten Year Power Plant Site Plan* (FPL 2002) or some other unspecified location.

### **9.1 Environmental Impacts of the Proposed Action – License Renewal**

FPL and the staff have established independent processes for identifying and evaluating the significance of any new information on the environmental impacts of license renewal. Neither FPL nor the staff has identified information that is both new and significant related to Category 1 issues that would call into question the conclusions in the GEIS. Similarly, neither the scoping process, FPL, nor the staff has identified any new issue applicable to St. Lucie Units 1 and 2, that has a significant environmental impact. Therefore, the staff relies upon the conclusions of the GEIS for all Category 1 issues that are applicable to St. Lucie Units 1 and 2.

FPL's license renewal application presents an analysis of the Category 2 issues that are applicable to St. Lucie Units 1 and 2, plus environmental justice and chronic effects from electromagnetic fields. The staff has reviewed the FPL analysis for each issue and has conducted an independent review of each issue. Six Category 2 issues are not applicable because they are related to plant design features or site characteristics not found at St. Lucie.



Nine Category 2 issues are not discussed in this SEIS because they are specifically related to refurbishment. FPL (FPL 2001b) has stated that its evaluation of structures and components, as required by 10 CFR 54.21, did not identify any major plant refurbishment activities or modifications as necessary to support the continued operation of St. Lucie Units 1 and 2 for the license renewal period. In addition, any replacement of components or additional inspection activities are within the bounds of normal plant component replacement and, therefore, are not expected to affect the environment outside of the bounds of the plant operations evaluated in the *Final Environmental Statement Related to the St. Lucie Plant Unit No. 1* (AEC 1973) and *The Final Environmental Statement Related to the Operation of St. Lucie Plant Unit No. 2* (NRC 1982).

Eleven Category 2 issues related to operational impacts and postulated accidents during the renewal term, as well as environmental justice and chronic effects of electromagnetic fields, are discussed in detail in this SEIS. For all Category 2 issues and environmental justice, the staff concludes that the potential environmental effects are of SMALL significance in the context of the standards set forth in the GEIS. In addition, the staff determined that appropriate Federal health agencies have not reached a consensus on the existence of chronic adverse effects from electromagnetic fields. Therefore, this issue has not been evaluated further. For threatened or endangered species, the staff's conclusion is that the impact resulting from license renewal would be SMALL and further mitigation is not warranted. For severe accident mitigation alternatives (SAMAs), the staff concludes that a reasonable, comprehensive effort was made to identify and evaluate SAMAs. Based on its review of the SAMAs for St. Lucie Units 1 and 2, the staff concludes that none of the candidate SAMAs is cost-beneficial.

Mitigation measures were considered for each Category 2 issue. Current measures to mitigate the environmental impacts of plant operation were found to be adequate, and no additional mitigation measures were deemed sufficiently beneficial to be warranted.

The following sections discuss unavoidable adverse impacts, irreversible or irretrievable commitments of resources, and the relationship between local short-term use of the environment and long-term productivity.

### **9.1.1 Unavoidable Adverse Impacts**

An environmental review conducted at the license renewal stage differs from the review conducted in support of a construction permit because the plant is in existence at the license renewal stage and has operated for a number of years. As a result, adverse impacts associated with the initial construction have been avoided, have been mitigated, or have already occurred. The environmental impacts to be evaluated for license renewal are those associated with refurbishment and continued operation during the renewal term.

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The adverse impacts of continued operation identified are considered to be of SMALL significance, and none of them warrant implementation of additional mitigation measures. The adverse impacts of likely alternatives if St. Lucie Units 1 and 2 cease operation at or before the expiration of the current OLS will not be smaller than those associated with continued operation of these units, and they may be greater for some impact categories in some locations.

### **9.1.2 Irreversible or Irrecoverable Resource Commitments**

The commitment of resources related to construction and operation of St. Lucie Units 1 and 2 during the current license period was made when the plants were built. The resource commitments to be considered in this SEIS are associated with continued operation of the plants for an additional 20 years. These resources include materials and equipment required for plant maintenance and operation, the nuclear fuel used by the reactors, and ultimately, permanent offsite storage space for the spent fuel assemblies.

The most significant resource commitments related to operation during the renewal term are related to fuel fabrication and the disposal of low- and high-level radioactive wastes. St. Lucie Units 1 and 2 replace approximately one-third of the fuel assemblies in each of the two units during every refueling outage, which occurs on an 18-month cycle.

The likely power generation alternatives if St. Lucie Units 1 and 2 cease operation on or before the expiration of the current OLS will require a commitment of resources for construction of the replacement plants as well as for fuel to run the plants.

### **9.1.3 Short-Term Use Versus Long-Term Productivity**

An initial balance between short-term use and long-term productivity of the environment at the St. Lucie site was set when the plants were approved and construction began. That balance is now well established. Renewal of the OLS for St. Lucie Units 1 and 2 and continued operation of the plant will not alter the existing balance, but may postpone the availability of the site for other uses. Denial of the application to renew the OLS will lead to shutdown of the plant and will alter the balance in a manner that depends on subsequent uses of the site. For example, the environmental consequences of turning the St. Lucie site into a park or an industrial facility are quite different.

## 9.2 Relative Significance of the Environmental Impacts of License Renewal and Alternatives

The proposed action is renewal of the OLs for St. Lucie Units 1 and 2. Chapter 2 describes the site, the plant, and interactions of the plant with the environment. As noted in Chapter 3, no refurbishment and no refurbishment impacts are expected at St. Lucie Units 1 and 2. Chapters 4 through 7 discuss environmental issues associated with renewal of the OLs. Environmental issues associated with the no-action alternative and alternatives involving power generation and use reduction are discussed in Chapter 8.

The significance of the environmental impacts from the proposed action (approval of the application for renewal of the OLs); the no-action alternative (denial of the application, no replacement generation, and decommissioning the two units); alternatives involving alternate power generation by nuclear, coal, or gas generation of power at an unspecified "greenfield site;" and a combination of alternatives are compared in Table 9-1. Use of a closed-cycle cooling system with cooling towers for alternate power generation is assumed for Table 9-1. Once-through cooling impacts will be smaller in some instances, (e.g., Land Use and Ecology), because additional land is not required to support cooling towers and associated infrastructure.

Table 9-1 shows that the significance of the environmental effects of the proposed action are SMALL for all impact categories (except for collective offsite radiological impacts from the fuel cycle and from HLW and spent fuel disposal, for which a single significance level was not assigned [see Chapter 6]). The alternative actions, including the no-action alternative, may have environmental effects in at least some impact categories that reach MODERATE or LARGE significance.

## 9.3 Staff Conclusions and Recommendations

Based on (1) the analysis and findings in the GEIS (NRC 1996, 1999); (2) the ER submitted by FPL (FPL 2001b); (3) consultation with Federal, State, and local agencies; (4) the staff's own independent review; and (5) the staff's consideration of public comments, the recommendation of the staff is that the Commission determine that the adverse environmental impacts of license renewal for St. Lucie Units 1 and 2 are not so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

**Table 9-1.** Summary of Environmental Significance of License Renewal, the No-Action Alternative, and Alternative Methods of Generation Using Closed-Cycle Cooling

Impact Category	Proposed Action– License Renewal	No-Action Alternative– Denial of Renewal	Coal-Fired Generation	Natural-Gas-Fired Generation	New Nuclear Generation	Combination of Alternatives
			Greenfield Site <sup>(a)</sup>	Greenfield Site <sup>(a)</sup>	Greenfield Site <sup>(a)</sup>	Greenfield Site <sup>(a)</sup>
Land Use	SMALL	SMALL	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE
Ecology	SMALL	SMALL	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE
Water Use and Quality	SMALL	SMALL	SMALL to MODERATE	SMALL to MODERATE	SMALL to MODERATE	SMALL to MODERATE
Air Quality	SMALL	SMALL	MODERATE	MODERATE	SMALL	MODERATE
Waste	SMALL	SMALL	MODERATE	SMALL	SMALL	SMALL
Human Health <sup>(b)</sup>	SMALL	SMALL	SMALL	SMALL	SMALL	SMALL
Socioeconomics	SMALL	SMALL	MODERATE to LARGE	MODERATE	MODERATE to LARGE	MODERATE
Aesthetics	SMALL	SMALL	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE	MODERATE to LARGE
Historic and Archaeo- logical Resources	SMALL	SMALL	SMALL	SMALL	SMALL	SMALL
Environmental Justice	SMALL	SMALL	SMALL	SMALL	SMALL	SMALL

(a) A greenfield site is assumed, for the purpose of bounding potential impacts, to be an undeveloped site with no previous construction.

(b) Excludes collective offsite radiological impacts from the fuel cycle and from HLW and spent-fuel disposal, for which single significance levels were not assigned. See Chapter 6 for details.

## 9.4 References

10 CFR 51. Code of Federal Regulations, Title 10, *Energy*, Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.”

10 CFR 54. Code of Federal Regulations, Title 10, *Energy*, Part 54, “Requirements for Renewal of Operating Licenses for Nuclear Power Plants.”

Florida Power and Light Company (FPL). 2001a. *Application for Renewed Operating Licenses, St. Lucie Units 1 and 2*. Miami, Florida.

Florida Power and Light Company (FPL). 2001b. *Applicant’s Environmental Report – Operating License Renewal Stage St. Lucie Units 1 and 2*. Docket Nos. 50-335 and 50-389, Miami, Florida.

Florida Power and Light Company (FPL). 2002. *Ten Year Power Plant Site Plan 2002 - 2011*. Miami, Florida.

National Environmental Policy Act of 1969 (NEPA). 42 USC 4321, et seq.

U.S. Atomic Energy Commission (AEC). 1973. *Final Environmental Statement Related to the St. Lucie Plant Unit No. 1, Florida Power and Light Company*. Docket No. 50-335, Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 1982. *Final Environmental Statement Related to the Operation of St. Lucie Plant, Unit No. 2, Florida Power and Light Company, Orlando Utilities Commission of the City of Orlando, Florida*. Docket No. 50-389, Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 1996. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*. NUREG-1437, Volumes 1 and 2, Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 1999. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Main Report*, “Section 6.3–Transportation, Table 9.1 Summary of findings on NEPA issues for license renewal of nuclear power plants, Final Report.” NUREG-1437, Volume 1, Addendum 1, Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 2000. *Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal*. NUREG-1555, Supplement 1, Washington, D.C.

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U.S. Nuclear Regulatory Commission (NRC). 2002a. "Florida Power and Light Company, Saint Lucie Plant, Units 1 and 2; Notice of Intent To Prepare an Environmental Impact Statement and Conduct Scoping Process." *Federal Register*. Vol. 67, No. 40, pp. 9333-9335, February 28, 2002. Washington D.C.

U.S. Nuclear Regulatory Commission (NRC). 2002b. *Environmental Scoping Summary Report – St. Lucie Units 1 and 2, St Lucie County, Florida*. Docket Nos 50-335 and 50-389. June 2002. Washington, D.C.

## **Appendix A**

### **Comments Received on the Environmental Review**





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## Appendix A

### Comments Received on the Environmental Review

#### Part I - Comments Received During Scoping

##### A.1 Introduction

On February 28, 2002, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the Federal Register (67 FR 9333), to notify the public of the staff's intent to prepare a plant-specific supplement to the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2, to support the renewal application for the St. Lucie operating licenses and to conduct scoping. The plant-specific supplement to the GEIS has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) guidelines, and 10 CFR Part 51. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the Federal Register Notice. The NRC invited the applicant; Federal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or submitting written suggestions and comments no later than April 30, 2002.

The scoping process included two public scoping meetings, which were held at the Council Chambers in Port St. Lucie, Florida, on April 3, 2002. Approximately 30 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. After the NRC's prepared statements, the meetings were open for public comments. Thirty-three attendees provided either oral or written statements that were recorded and transcribed by a certified court reporter. The transcripts of the meetings and the meeting summary were issued on May 7, 2002. The meeting summary and transcripts are available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system, ADAMS, under accession numbers ML021160265, ML021160237, and ML021300604. In addition to the comments provided during the public meetings, four comment letters and eight e-mail messages were received by the NRC in response to the Notice of Intent.

At the conclusion of the scoping period, the NRC staff and its contractor(s) reviewed the transcripts and all written material to identify individual comments. All comments and suggestions received orally during the scoping meetings or in writing were considered. Each set of comments was given a unique identifier (Commenter ID number), so that each set of

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comments from a commenter could be traced back to the transcript or letter by which the comments were submitted. Several commenters submitted comments through multiple sources (e.g., afternoon and evening scoping meetings, letters, or e-mail messages).

Table A-1 identifies the individuals who provided comments and the Commenter ID number associated with each person's set(s) of comments. The individuals are listed in the order in which they spoke at the public meeting and in alphabetical order for the comments received by letter or e-mail.

Specific comments were categorized and consolidated by topic. Comments with similar specific objectives were combined to capture the common essential issues raised by the commenters. The comments fall into one of several general groups. These groups include

- specific comments that address environmental issues within the purview of the NRC environmental regulations related to license renewal. These comments address Category 1 or Category 2 issues or issues that were not addressed in the GEIS. They also address alternatives and related Federal actions.
- general comments (1) in support of or opposed to nuclear power or license renewal or (2) on the renewal process, the NRC's regulations, and the regulatory process. These comments may or may not be specifically related to the St. Lucie license renewal application.
- questions that do not provide new information
- specific comments that address issues that do not fall within or are specifically excluded from the purview of NRC environmental regulations. These comments typically address issues such as the need for power, emergency preparedness, current operational safety issues, and safety issues related to operation during the renewal period.

Each comment applicable to this environmental review is summarized in this appendix. This information, which was extracted from the St. Lucie Scoping Summary Report, is provided for the convenience of those interested in the scoping comments applicable to this environmental review. The comments that are general or outside the scope of the environmental review for St. Lucie are not included here. More detail regarding the disposition of general or inapplicable comments can be found in the summary report. The ADAMS accession number for the summary report is ML021160348.

This accession number is provided to facilitate access to the document through the Public Electronic Reading Room (ADAMS) at <http://www.nrc.gov/reading-rm.html>.

The following pages summarize the comments and suggestions received as part of the scoping process that are applicable to this environmental review and discuss the disposition of the comments and suggestions. The parenthetical alpha-numeric identifier after each comment refers to the comment set (Commenter ID) and the comment number.

**Table A-1.** Individuals Providing Comments During Scoping Comment Period

<b>Commenters ID</b>	<b>Commenter</b>	<b>Affiliation (If Stated)</b>	<b>Comment Source and ADAMS Accession Number</b>
SL-A	Anderson	St. Lucie County	Afternoon Public Meeting <sup>(a)</sup>
SL-B	Mascara	St. Lucie County	Afternoon Public Meeting
SL-C	Minsky		Afternoon Public Meeting
SL-D	Hall		Afternoon Public Meeting
SL-E	Sizemore	St. Lucie County	Afternoon Public Meeting
SL-F	Campbell	Martin County Emergency Services	Afternoon Public Meeting
SL-G	Miller		Afternoon Public Meeting
SL-H	Jernigan	Florida Power & Light Company	Afternoon Public Meeting
SL-I	Abbatiello	Florida Power & Light Company	Afternoon Public Meeting
SL-J	Bangert	Conservation Alliance of St. Lucie County	Afternoon Public Meeting
SL-K	Brown	United Way	Afternoon Public Meeting
SL-L	Leslie		Afternoon Public Meeting
SL-M	Grande	The President's Council of Hutchinson Island	Afternoon Public Meeting
SL-N	Perry		Afternoon Public Meeting
SL-O	Oncavage		Afternoon Public Meeting
SL-P	Root	St. Lucie County Economic Development Council	Afternoon Public Meeting
SL-Q	Thompson	System Council U-4	Afternoon Public Meeting
SL-R	Smilen		Afternoon Public Meeting
SL-S	Egan	Marine Resources Council	Afternoon Public Meeting
SL-T	Doyle		Afternoon Public Meeting
SL-U	Jernigan	Florida Power & Light Company	Evening Public Meeting <sup>(b)</sup>
SL-V	Abbatiello	Florida Power & Light Company	Evening Public Meeting
SL-W	O'Keefe	American Association of University Women	Evening Public Meeting
SL-X	Hiott	St. Lucie Council of Social Agencies	Evening Public Meeting
SL-Y	Rowley		Evening Public Meeting
SL-Z	Barry		Evening Public Meeting
SL-AA	Vojcsik	United Way of Martin County	Evening Public Meeting
SL-AB	Baldwin	Soroptimists International of St. Lucie County	Evening Public Meeting
SL-AC	Davis	St. Lucie County Chamber of Commerce	Evening Public Meeting
SL-AD	Theodore		Evening Public Meeting

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**Table A-1. (cont'd)**

<b>Commenters ID</b>	<b>Commenter</b>	<b>Affiliation (If Stated)</b>	<b>Comment Source and ADAMS Accession Number</b>
SL-AE	Doyle		Evening Public Meeting
SL-AJ	Case	Broward Sierra Club	E-Mail ML021260520
SL-AP	Leslie		E-Mail ML021330038
SL-AH	Oncavage		E-Mail ML021330074
SL-AO	Oncavage		E-Mail ML021190425
SL-AQ	Oncavage	The Florida Chapter of the Sierra Club	Letter ML021260597
SL-AI	Smilan		E-Mail ML021260542
SL-AL	Smilan		E-Mail ML021260502
SL-AG	Southard	Board of County Commissioners	Letter ML021330016
SL-AF	Vogel	The School Board of St. Lucie County	Letter ML021330021
SL-AM	Woodfin		Letter ML021330006
SL-AN	Woodfin		E-Mail ML021330078
SL-AK	Ziring		E-Mail ML021260528

(a) The afternoon transcript can be found under accession number ML021160237.  
 (b) The evening transcript can be found under accession number ML021160265.

## A.2 Comments Received During Scoping that are Applicable to this Environmental Review

### A.2.1 Comments Concerning Socioeconomic Issues

**Comment:** While at the same time, time and time again, it has been involved in a lot of very good efforts, both in terms of education and energy efficiency, and just in general, in terms of the plant and the employees in the plant, in terms of participating in local humanitarian type of efforts. (SL-S-7)

**Comment:** For the last five years on an average, they have been good corporate citizens and good employees. They have donated on an average of over \$103,000 a year for the last five years. Not only have they donated their time and money, but they have given of all of their energies to this community to make it a better place to live. (SL-K-3)

**Comment:** I can attest that FPL has been an outstanding partner to our school district. The plant's Energy Encounter hosts thousands of visitors annually, including many students. In addition to providing hands-on science programs for schools, free workshops for teachers are offered. The plant donated computers and supplies to local schools, and FPL has made substantial contributions to the Regional Sports Stadium and the St. Lucie County Marine Center. (SL-AF-2)

**Comment:** I am pleased to be a part of a group of FPL employees who contribute to local area agencies through the United Way. (SL-V-2) (SL-I-2)

**Comment:** The people of Hutchinson Island have asked me to let you know that the community in the immediate vicinity of the power plant views the plant as a good neighbor and a conscientious advocate and friend of the fragile barrier island environment. (SL-M-1)

**Comment:** Our (FPL) employees also mentor students and volunteer in local schools. We also support the St. Lucie County Education Foundation in its scholarship program. (SL-V-3) (SL-I-3)

**Comment:** FPL employees are also involved in helping the community through other organizations, such as Scouts, Little Leagues, civic groups, and church programs. (SL-V-4) (SL-I-4)

**Comment:** The Plant's (St. Lucie's) information center, called the Energy Encounter, hosts about 40,000 visitors each year, including 15,000 students who visit on educational field trips. (SL-V-5) (SL-I-5)

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**Comment:** I have found them (FPL) to be a very good neighbor, three miles away. They are involved in the community. (SL-W-5)

**Comment:** The employees at the plant give very generously to local United Way campaigns here on the Treasure Coast. They contribute hundreds of thousands of dollars each year to local charitable organizations through their participation. (SL-AA-4)

**Comment:** But more importantly our people do more than just work at the power plant. They're involved in the community. They're part of this community. (SL-H-3) (SL-U-3)

**Comment:** The St. Lucie Power Plant is a good neighbor that participates or sponsors a number of educational, environmental, and civic activities. (SL-Z-4)

**Comment:** The St. Lucie Plant is a good neighbor. Speaking on behalf of the United Way of Martin County, I personally know many of the employees at the St. Lucie Plant and I know how they're involved in the community. And I know personally that they are involved with many organizations that are making a difference in our quality of life in the community. (SL-AA-3)

**Comment:** They're (FPL) good neighbors. Good neighbors always contribute the economy. (SL-Y-4)

**Comment:** Of course, many people spoke about how community-active they are. And I don't know as much about that, but I do know Rachel Scott and I do know her leadership for United Way here in St. Lucie County has been phenomenal this past year. (SL-AC-6)

**Comment:** I see all the good involvement they have in the social services in this community. United Way wouldn't be the same without them. Certainly our own personal experience at Big Brothers, Big Sisters would not be the same. They've worked for hundreds and thousands of people in this community every year. (SL-G-7)

**Comment:** I can tell you all the things they're involved in, in the school system, in education, the Energy Encounter plant that brings thousands of kids in each year to educate them about science and electricity. (SL-G-6)

**Comment:** That number of employees who have money and time participate actively in local charities and support our local PTAs and schools in a number of ways that we just don't see, but it happens all the time. (SL-F-2)

**Comment:** They (FPL) do build houses for habitat for low-income families. (SL-W-2)



**Comment:** I'm here to tell you about the good neighbor that I think that Florida Power and Light has been over all of the years I've been in the community. (SL-G-1)

**Comment:** FPL employees, led by Rachel Scott, External Affairs Manager, are active in the community and serve on various boards including the Education Foundation. (SL-AF-3)

**Response:** *The comments are noted. The comments are supportive of license renewal for St. Lucie Units 1 and 2. Public services were evaluated in the GEIS and determined to be a Category 1 issue. Information regarding the impact on socioeconomic issues will be discussed in Section 4.0 of the SEIS.*

**Comment:** Today I draw issues from an economic development point of view. St. Lucie Power Plant has a tremendous effect on St. Lucie County. (SL-P-1)

**Comment:** The plant is also one of the largest employers in our area, and it's very important to our local economy. A business of this size would be very difficult to replace. The plant's payroll, purchases and property taxes supply our local governments with revenue which we need to provide services on which we depend. (SL-AA-5)

**Comment:** The estimated economic impact of plant operation (St. Lucie) is more than 80 million dollars annually. (SL-I-14) (SL-V-14)

**Comment:** I'm here to speak about the economic health of St. Lucie County, of which the St. Lucie Power Plant is a key contributor. (SL-A- 1)

**Response:** *The comments are noted. Effects on the local economy due to license renewal are considered as a Category 2 issue in the GEIS and are, therefore, examined on a site-specific basis in Sections 2.0 and 4.0 of the supplement to the GEIS for St. Lucie license renewal.*

**Comment:** Florida Power and Light is the second largest employer in the county, with more than 800 full-time workers and contributes more than 80 million to the local economy. (SL-AF-4)

**Comment:** We are one of the largest employers in the St. Lucie and Martin County areas, with over 800 full-time employees. (SL-H-2) (SL-U-2)

**Comment:** There are about 800 or more employees that work at the power plant. (SL-D-5)

**Comment:** FP&L is our, one of our major employers in this community. (SL-AC-4)

**Comment:** St. Lucie Power Plant employs approximately, twelve hundred people. (SL-A-2)

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**Comment:** There are 378 people at the plant who live in St. Lucie County and the payroll is about 23 million dollars. (SL-P-3)

**Comment:** If the St. Lucie Power Plant were to leave St. Lucie County, it would be difficult, we feel, to have those twelve hundred jobs absorbed into our community, and also our unemployment rate would start going back up, it would go back up. (SL-A-3)

**Comment:** FP&L has good paying jobs. (SL-A-4)

**Comment:** A clean industry that brings 800 or so paying, high paying jobs to the local economy, is just a phenomenal asset to have in this area. (SL-F-1)

**Response:** *The comments are noted. Employment factors related to license renewal are considered as a Category 2 issue in the GEIS and are, therefore, examined on a site-specific basis in Sections 2.0 and 4.0 of the supplement to the GEIS for St. Lucie license renewal.*

**Comment:** FP&L on the tax rolls brings a billion eighty million dollars in assess valuation. That's the size of business that would be very hard to replace in St. Lucie County, not to mention the unemployment that could result if they were to leave. (SL-G-2)

**Comment:** Their investments in property and facilities provide extremely strong part of our tax base that drives our community. (SL-AC-5)

**Comment:** The taxes paid here due to the St. Lucie Plant is approximately 20 million dollars a year. (SL-P-2)

**Response:** *The comments are noted. The comments are supportive of license renewal and relate to the socioeconomic benefits that the plant brings to the local communities. Effects on the tax base due to license renewal are considered as a Category 2 issue in the GEIS and are, therefore, examined on a site-specific basis in Sections 2.0 and 4.0 of the supplement to the GEIS for St. Lucie license renewal.*

### A.2.2 Comments Concerning Air Quality Issues

**Comment:** The carbon emissions from the endless line of nuclear-laden security truck convoys will surely contribute a little something. (SL-T-4)

**Comment:** The St. Lucie Power Plant provides a source of clean energy. And it's through our operations that we avoid production of greenhouse gases, which many scientists believe contribute to global warming. (SL-U-4) (SL-H-4)

**Comment:** Another benefit in renewing the St. Lucie Plant licenses is our ability to continue providing clean energy without using additional land for new power plants. In fact, nuclear power plants prevent substantial amount of carbon emissions and other pollutants from going into the air we breathe. The positive impact on air quality will continue during the period of extended operation. (SL-V-12) (SL-I-12)

**Comment:** When I look at the options that are out there, I'm looking for the kind of electricity that shows the least amount of pollution and I'm very, very pleased to be able to say that we have a nuclear power plant in St. Lucie County and that it's got the controls against pollution that it has. (SL-G-4)

**Comment:** But I have always felt that the clean air has been tested by the national people, by the state people. (SL-W-4)

**Response:** *The comments are noted. These emissions are regulated through permits issued by the U.S. Environmental Protection Agency and the State of Florida. Air quality will be discussed in Section 2.0 of the SEIS. The comments provide no new information and, therefore, will not be evaluated further.*

### **A.2.3 Comments Concerning Human Health Issues**

**Comment:** I believe that the St. Lucie Site-Specific Environmental Impact Statement must include careful analysis of the following factors, fully considering their impact throughout the 20-year extension period: analysis of health and environmental effects of airborne and liquid radioactive waste the St. Lucie plant has released and is projected to release during its operating life. (SL-AN-11)

**Comment:** My death and the possible death of countless peoples is acceptable to NRC regulations and FP&L procedures. It's threatening and it's not worth it. (SL-AE-5)

**Comment:** The nuclear industry presents a catastrophic scenario never before imaginable, and, besides the usual number of injuries and deaths in the energy field. (SL-AE-4)

**Comment:** I do believe that all industries, coal-fired plants, oil burning plants, they all have their allowable deaths per million ratio, but nuclear power, by the very nature of it, it's acceptance and promulgation among the very few governing and regulatory bodies, we don't have a lot of people giving input on this, just the NRC and FP&L. (SL-AE-3)

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**Response:** *The comments are noted. Radiation exposure to the public and workers from routine releases were evaluated in the GEIS and determined to be a Category 1 issue. The comments provide no new information and, therefore, will not be evaluated further.*

**Comment:** The company and outside agencies consistently monitor the air and water quality around the plant and surrounding communities, to ensure those strict environmental standards are not only maintained, but upheld. (SL-Q-5)

**Comment:** The company operates more than 30 different environmental monitoring stations that sample the air and the water, to ensure that they meet and do better than federal, state, and county standards. (SL-J-4)

**Comment:** The State of Florida, Department of Health, Bureau of Radiation and Control, independently monitors levels at locations surrounding Florida Power and Light's nuclear power plants and the agency also, they sample new plant soil and other water to confirm that they're testing their findings. (SL-D-6)

**Comment:** The State of Florida's Department of Health, Bureau of Radiation Control independently monitors and tests radiation levels at locations surrounding St. Lucie Plant. Monitoring and testing includes sampling of air, water, shoreline sediment, fish, crustacea, broad leaf vegetation, and milk. These levels have consistently been comparable to those measured throughout the state for the last 25 years. (SL-AG-4)

**Comment:** The NRC has a terrible track record as far as really addressing the problems of contamination of the environment. (SL-R-2)

**Comment:** Plant Emissions. The Generic EIS for License Renewal of Nuclear Plants, NUREG-1437, fails to list the isotopes and isotopic concentrations for radioactive pollution released to the public in airborne and waterborne waste streams for St. Lucie Units 1 & 2. The draft SEIS needs to list this information for each of the previous 10 years and project radioactive pollution amounts for the 20 years of license extension. Since the GEIS was completed in April 1996, the calculated exposure rates and the calculated adverse health effects have become woefully outdated. At a public meeting sponsored by the NRC in Homestead, Florida, it was stated by a member of the NRC staff that the work on the GEIS began in 1992. The date of April 1996 for manuscript completion gives no assurance that the data and calculations were current as of April 1996. (SL-AO-12) (SL-AQ-12)

**Comment:** All studies on radiation health effects completed since April 1996 are being ignored. The draft SEIS needs to publish accurate historical data on St. Lucie radioactive emissions, year by year, isotope by isotope. This would give independent scientists as well as industry scientists an opportunity to use current data and calculations to improve the accuracy of findings of the

outdated GEIS in time to be included in the final SEIS. By hiding this data from the public, the NRC fosters the perception that publishing isotopic emissions data is something to be feared and avoided at all costs. (SL-AO-13) (SL-AQ-13)

**Response:** *The comments are noted. The requirements for monitoring and quantification of routine releases to the environment are beyond the scope of license renewal. The NRC requires the licensee routinely to conduct radiological monitoring of all plant effluents, as well as sample biota and locally grown food-stuffs. Additionally, the State of Florida independently monitors the environment around the nuclear plant for radioactive contamination. The NRC also communicates with permitting agencies that administer the Clean Water Act and the Clean Air Act, State radiological agencies, the Fish and Wildlife Service, and other organizations. Any potential noncompliance of monitoring requirements is an operational safety issue, handled through the inspection and reporting process and is not within the scope of license renewal. The comments provide no new information, and, therefore, will not be evaluated further.*

#### **A.2.4 Comments Concerning Aquatic Ecology Issues**

**Comment:** The power plant itself has not been emitting pollutants of any kind that would have been damaging our marine resources. (SL-S-4)

**Response:** *The comment is noted. The comment concerns a Category 1 issue: effects of plant releases on aquatic biota near St. Lucie Units 1 and 2. Aquatic ecology will be discussed in Section 2.0 and environmental impacts of operation will be discussed in Section 4.0 of the SEIS. The comment provides no new information and, therefore, will not be evaluated further.*

**Comment:** I believe that the St. Lucie Site-Specific Environmental Impact Statement must include careful analysis of the following factors, fully considering their impact throughout the 20-year extension period: analysis of bioaccumulated radioactivity in marine life at the outfall pipe and projected additional accumulation during the extended operating period. (SL-AN-12)

**Response:** *The comment is noted. The comment concerns accumulation of radioisotopes in aquatic biota, which was evaluated in the GEIS and determined to be a Category 1 issue. Aquatic ecology will be discussed in Section 2.0 and environmental impacts of operation will be discussed in Section 4.0 of the SEIS. The comments provide no new information and, therefore, will not be evaluated further.*

#### **A.2.5 Comments Concerning Terrestrial Resource Issues**

**Comment:** And the fact that the plant takes up quite a bit of very prime real estate and leaves it in its natural state is a spectacular opportunity for us in terms of providing habitat that we could not afford to purchase these properties and maintain them in that natural state. (SL-S-5)

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**Response:** *The comment is noted and relates to terrestrial ecology Category 1 issues. The comment provides no new information; therefore, it will not be evaluated further.*

### **A.2.6 Comments Concerning Uranium Fuel Cycle and Waste Management Issues**

**Comment:** I believe that the St. Lucie Site-Specific Environmental Impact Statement must include careful analysis of the following factors, fully considering their impact throughout the 20-year extension period: Costs of safely and securely storing high level nuclear wastes on site for at least 20 more years. (SL-AN-9)

**Comment:** The cost impact analysis should include: Risks of accidental radiation release from a fuel transport and storage. (SL-AM-3)

**Comment:** I believe that the St. Lucie Site-Specific Environmental Impact Statement must include careful analysis of the following factors, fully considering their impact throughout the 20-year extension period: Long term storage and transportation hazards of high level nuclear wastes, including analysis of land routes for the transportation of new fuel and spent fuel through Florida. (SL-AN-10)

**Comment:** Why do you need a separate license for the pool expansion or dry cask storage? This should be planned along with the license to renew, to operate. (SL-T-3)

**Response:** *Onsite storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of a long-term storage of spent fuel onsite has been evaluated by the NRC and, as set forth in the Waste Confidence Rule, the NRC generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the licensed operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be moved to a permanent repository. The Generic Environmental Impact Statement for License Renewal of Nuclear Plants (GEIS), NUREG-1437, is based upon the assumption that storage of the spent fuel onsite is not permanent. The plant-specific supplement to the GEIS that will be prepared regarding license renewal for the St. Lucie Units 1 and 2, will be based on the same assumption.*

*Likewise, the matter of processing and storage of low-level waste is considered a Category 1 issue. The conclusion regarding this issue in the GEIS included consideration of the long-term storage of low-level waste onsite during the license renewal term. The comments provide no new information; therefore the comments will not be evaluated further.*

### A.2.7 Comments Concerning Threatened or Endangered Species Issues

**Comment:** The St. Lucie Power Plant is not only a place that produces clean, safe, low cost electricity, it also is an environmentally friendly facility, that provides a home to dozens of rare, threatened or endangered birds and animals. (SL-Z-7)

**Comment:** The plant itself, it's been mentioned, the nuclear plant doesn't take up but a small portion of the total acreage on the barrier island site. So the rest of the acreage is left in its natural state and it's maintained in a natural state, in fact enhanced in some areas, by removing exotic vegetation such as Brazilian Pepper and Australian Pine, and does provide habitat for a tremendous diversity of life that's on the barrier island, associated with the coastal area, about a 180 or so species of plants and animals that are associated with the site, about 36 different endangered species there, or threatened species that are on the site, too. (SL-N-2)

**Response:** *The comments are noted. Threatened or Endangered Species is a Category 2 issue, and will be addressed in Sections 2.2 and 4.6 of the supplemental EIS for St. Lucie Units 1 and 2.*

**Comment:** The St. Lucie Plant, which looks out on the Atlantic Ocean, maintains a strong commitment to sea turtle protection. Our (FPL) sea turtle program involves around the clock efforts, including scientific research and data gathering, participation in the sea turtle stranding and salvage program, participation in the sea turtle beach nesting surveys and our free guided turtle walks for the public. (SL-I-9) (SL-V-9)

**Comment:** The work they (FPL) do on local marine life and their specialized work with our sea turtle population fills a very important need for us. (SL-M-2)

**Comment:** There's also a great deal of care for some of our lagoon residents, such as the sea turtles, that could be killed or injured in water intakes and things of that nature. Every effort is made to protect them. (SL-S-6)

**Comment:** The Turtle Beach nature trail mentioned here earlier, is open to the public to enjoy Florida's natural beauty. The plant's beaches provide one of the best nesting sites for threatened or endangered sea turtles, and the overall facility itself is a place of quiet beauty. (SL-Z-8)

**Response:** *The comments are noted. Sea turtles are protected under the Endangered Species Act, and are evaluated as Threatened or Endangered Species, which is a Category 2 issue. That analysis will be presented in Sections 2.2 and 4.6 of the supplemental EIS for St. Lucie Units 1 and 2.*

## A.2.8 Comments Concerning Alternatives to the Proposed Action

**Comment:** I also feel that the NEPA, National Environmental Policy Act goes way back, too. That's all the way back to 1969. That's what a lot of this is being based on. I think it's a pro-nuclear bill. It's basically about the process to consider alternatives, which aiming right towards nuclear power. (SL-T-1)

**Comment:** If the application is not renewed, he said it would take ten years to create an alternate source of energy. And think about that. We'd have to take ten years to find alternate sources of energy. What is the cost going to be? Where is it going to come from? Is it going to be available? And now we have a plant we have to shut down. What's the cost of shutting the plant down? What's the cost going to be for jobs in the community if we have to shut the plant down? And what are the other environmental costs that it's going to take to get sources that probably aren't going to be in our own community? Our community will suffer. (SL-AB-2)

**Comment:** An environmental trade study comparing the estimated cost and pollution of various energy conversion plants should be a part of the renewal process. This should include the total cost per kW and total cost per kWh including any subsidies. These trades should include those sources that would be substituted if the renewal license were denied and other energy sources must be used in compensation. These should include coal, oil, natural gas, wind, solar, and other less likely forms such as biomass, wave and tidal energy. (SL-AP-1)

**Response:** *The comments are noted. Impacts from reasonable alternatives for the St. Lucie license renewal will be evaluated in Section 8.0 of the SEIS.*

**Comment:** The other aspect of what Florida has is biomass, and in spite of our state senator arguing for the burning of city waste and incinerator plants, using the heat form that to generate more energy, there are a lot of pollutants that are associated with human induced waste. The aspects of mercury, lead, various heavy metals that are within the incineration system and have to be removed, some remaining to go into the air and water. (SL-L-6)

**Comment:** There are aspects that should be compared for the non-license renewable aspect in the EIS scoping to include coal plants, oil fired plants, the natural gas plants that are far lower in pollution, but there's a lot of limit as to how much there is. It's all fossil fuel. (SL-L-3)

**Comment:** I read somewhere, on a scale comparing fossil fuel plants with nuclear plant, the fossil plants pollute at the rate of 30 to 45 percent and the nuclear plant, in comparison, about 3 percent. (SL-J-3)



**Comment:** They don't burn fossil fuel, although we are concerned about where that spent fuel is going to go and what's going to happen. There are other alternatives that always can be explored and looked at. (SL-N-6)

**Response:** *The comments are noted. Impacts from reasonable alternatives, including alternative fuels, for the St. Lucie license renewal will be evaluated in Section 8.0 of the SEIS.*

**Comment:** Nowhere here tonight did I hear that we must conserve. I think this is one of our greatest focuses that we must do. The electricity consumed per customer has to decrease. I hear that's been on the increase. (SL-AE-7)

**Response:** *The comment is noted. Impacts from reasonable alternatives, including conservation, for the St. Lucie license renewal will be evaluated in Section 8.0 of the SEIS.*

**Comment:** The other aspect of renewable energy is also very difficult. For Florida you'd think, well, it's the sunshine state, but we don't get as much as Arizona. We have sea breeze storms, cloud cover, roughly five hours on the average of sunlight, direct blue sky sunlight a day. That's quite a limitation. (SL-L-4)

**Response:** *The comment is noted. Impacts from reasonable alternatives, including solar power generation, for the St. Lucie license renewal will be evaluated in Section 8.0 of the SEIS.*

**Comment:** As much as I'm a wind energy fan, there's not a lot of wind in Florida. It's rated marginal by FP&L. (SL-L-5)

**Response:** *The comment is noted. Impacts from reasonable alternatives, including wind power, for the St. Lucie license renewal will be evaluated in Section 8.0 of the SEIS.*

## Part II - Comments Received on the Draft SEIS

### A.3 Introduction

Pursuant to 10 CFR Part 51, the staff transmitted the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding St. Lucie Unit 1 and 2, Draft Report for Comment* (NUREG-1437, Supplement 11, referred to as the draft SEIS) to Federal, State, and local government agencies as well as interested members of the public, requesting comments by January 15, 2003. As part of the process to solicit public comments on the draft SEIS, the staff:

- placed a copy of the draft SEIS into the NRC's electronic Public Document Room, its license renewal website, and the Indian River Community College Library in Fort Pierce, Florida
- sent copies of the draft SEIS to the applicant, members of the public who requested copies, and certain Federal, State, and local agencies
- published a notice of availability of the draft SEIS and opportunity for comment in the Federal Register on November 1, 2002 (67 FR 66674)
- issued public announcements, such as advertisements in local newspapers and postings in public places, of the availability of the draft SEIS
- announced and held two public meetings in Port St. Lucie, Florida, on December 3, 2002, to describe the results of the environmental review and answer related questions
- issued public service announcements and press releases announcing the issuance of the draft SEIS, the public meetings, and instructions on how to comment on the draft SEIS
- established a website to receive comments on the draft SEIS through the Internet.

During the comment period, the staff received a total of nine comment letters in addition to the comments received during the public meetings.

The staff has reviewed the public meeting transcripts and the nine comment letters that are part of the docket file for the application, all of which are available in the NRC's Electronic Public Document Room. Appendix A, Part II, Section A.4 contains a summary of the comments and the staff's responses. Related issues are grouped together. Appendix A, Part II, Section A.5 contains excerpts of the December 3, 2002, public meeting transcripts, the written statements provided at the public meetings, and the comment letters.

Each comment identified by the staff was assigned a specific alpha-numeric identifier (marker). That identifier is typed in the margin of the transcript or letter at the beginning of the discussion of the comment. A cross-reference of the alpha-numeric identifiers, the speaker or author of the comment, the page where the comment can be found, and the section(s) of this report in which the comment is addressed is provided in Table A-2. The speakers at the meetings are listed in speaking order along with the page of the transcript excerpts in this report on which the comment appears. These comments are identified by the letters "SLD" followed by a number that identifies each comment in approximate chronological order in which the comments were made. The written statements (from the public meetings) and written comment letters are also identified by the letters "SLD."

The staff made a determination on each comment that it was one of the following:

- (1) a comment that was actually a request for information and introduced no new information
- (2) a comment that was either related to support or opposition of license renewal in general (or specifically St. Lucie Units 1 and 2) or that made a general statement about the license renewal process. It may have made only a general statement regarding Category 1 and/or Category 2 issues. In addition, it provided no new information and does not pertain to safety considerations reviewed under 10 CFR Part 54.
- (3) a comment about a Category 1 issue that
  - (a) provided significant new information that required evaluation during the review, or
  - (b) provided no significant new information
- (4) a comment about a Category 2 issue that
  - (a) provided significant information that required evaluation during the review, or
  - (b) provided no such information
- (5) a comment that raised an environmental issue that was not addressed in the GEIS or the draft SEIS
- (6) a comment on safety issues pertaining to 10 CFR Part 54
- (7) a comment outside the scope of license renewal (not related to 10 CFR Parts 51 or 54), or
- (8) a comment that was editorial in nature.

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Comment types 3, 4, 5, and 8 may have resulted in changes to the text.

There was no significant new information provided on Category 1 issues [(3)(a) above] or information that required further evaluation on Category 2 issues [(4)(a)]. Therefore, the GEIS and draft SEIS remained valid and bounding, and no further evaluation was performed.

Comments without a supporting technical basis or without any new information are discussed in this appendix, and not in other sections of this report. Relevant references that address the issues within the regulatory authority of the NRC are provided where appropriate. Many of these references can be obtained from the NRC Electronic Public Document Room.

Within each section of Part II of this appendix (A.4.1 through A.4.16), similar comments are grouped together for ease of reference, and a summary description of the comments is given, followed by the staff's response. Where the comment or question resulted in a change in the text of the draft report, the corresponding response refers the reader to the appropriate section of this report where the change was made. Revisions to the text in the draft report are designated by vertical lines beside the text.

Some numbers were initially assigned to portions of verbal or written statements that were later determined not to be comments. These items were removed from the table. As a result, not all numbers are sequential (see Table A-2.)

**Table A-2. Comment Log**

No.	Speaker or Author	Source	Page Number	Section(s) Where Addressed
SLD-A-1	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-44	A.4.11
SLD-A-2	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-27	A.4.3
SLD-A-3	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-A-4	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-27	A.4.3
SLD-A-5	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-A-6	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-A-7	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-47	A.4.14
SLD-A-8	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-41	A.4.11
SLD-A-9	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-A-10	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-44	A.4.11
SLD-A-11	D. Anderson	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-B-1	B. Bangert	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-B-2	B. Bangert	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-B-3	B. Bangert	Afternoon Meeting Transcript (12/03/02)	A-37	A.4.9
SLD-B-4	B. Bangert	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-C-1	R. Parrish	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-D-1	G. Wilson	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11

Table A-2. (cont'd)

No.	Speaker or Author	Source	Page Number	Section(s) Where Addressed
SLD-D-2	G. Wilson	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-D-3	G. Wilson	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-E-1	S. Wolfberg	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-F-1	D. Daniel	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-F-2	D. Daniel	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.15
SLD-F-3	D. Daniel	Afternoon Meeting Transcript (12/03/02)	A-54	A.4.15
SLD-F-4	D. Daniel	Afternoon Meeting Transcript (12/03/02)	A-54	A.4.15
SLD-F-5	D. Daniel	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.15
SLD-G-1	G. Cantrell	Afternoon Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-H-1	J. Miller	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-I-1	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-I-2	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-I-3	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-I-4	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-I-5	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-I-6	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-I-7	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-37	A.4.9
SLD-I-8	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-31	A.4.4
SLD-I-9	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-44	A.4.11
SLD-I-10	D. Jerigan	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-J-1	T. Abbatiello	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-J-2	T. Abbatiello	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-J-3	T. Abbatiello	Afternoon Meeting Transcript (12/03/02)	A-37	A.4.9
SLD-J-4	T. Abbatiello	Afternoon Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-J-5	T. Abbatiello	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-K-1	J. Vojcsik	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-K-2	J. Vojcsik	Afternoon Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-K-3	J. Vojcsik	Afternoon Meeting Transcript (12/03/02)	A-44	A.4.11
SLD-K-4	J. Vojcsik	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-L-1	A. Hall	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-L-2	A. Hall	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-L-3	A. Hall	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.15
SLD-L-4	A. Hall	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.15
SLD-L-5	A. Hall	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.14
SLD-M-1	F. Leslie	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-M-2	F. Leslie	Afternoon Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-M-3	F. Leslie	Afternoon Meeting Transcript (12/03/02)	A-48	A.4.14
SLD-M-4	F. Leslie	Afternoon Meeting Transcript (12/03/02)	A-48	A.4.14
SLD-M-5	F. Leslie	Afternoon Meeting Transcript (12/03/02)	A-48	A.4.14
SLD-N-1	B. Raatz	Afternoon Meeting Transcript (12/03/02)	A-49	A.4.14
SLD-N-2	B. Raatz	Afternoon Meeting Transcript (12/03/02)	A-49	A.4.14
SLD-N-3	B. Raatz	Afternoon Meeting Transcript (12/03/02)	A-49	A.4.14

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**Table A-2. (cont'd)**

<b>No.</b>	<b>Speaker or Author</b>	<b>Source</b>	<b>Page Number</b>	<b>Section(s) Where Addressed</b>
SLD-N-4	B. Raatz	Afternoon Meeting Transcript (12/03/02)	A-55	A.4.15
SLD-N-5	B. Raatz	Afternoon Meeting Transcript (12/03/02)	A-33	A.4.7
SLD-O-1	R. De Cristofaro	Afternoon Meeting Transcript (12/03/02)	A-56	A.4.15
SLD-P-1	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-P-2	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-45	A.4.13
SLD-P-3	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-50	A.4.15
SLD-P-4	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-53	A.4.15
SLD-P-5	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-38	A.4.10
SLD-P-6	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-39	A.4.10
SLD-P-7	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-39	A.4.10
SLD-P-8	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-50	A.4.15
SLD-P-9	B. Wells	Afternoon Meeting Transcript (12/03/02)	A-56	A.4.15
SLD-Q-1	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-Q-2	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-44	A.4.11
SLD-Q-3	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-Q-4	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-Q-5 <sup>(a)</sup>	H. Fenn	Afternoon Meeting Transcript (12/03/02)	NA	NA
SLD-Q-6	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-Q-7	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-Q-8	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-Q-9	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-48	A.4.14
SLD-Q-10	H. Fenn	Afternoon Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-R-1	M. Oncavage	Afternoon Meeting Transcript (12/03/02)	A-26	A.4.2
SLD-R-2	M. Oncavage	Afternoon Meeting Transcript (12/03/02)	A-27	A.4.2
SLD-R-3	M. Oncavage	Afternoon Meeting Transcript (12/03/02)	A-52	A.4.15
SLD-R-4	M. Oncavage	Afternoon Meeting Transcript (12/03/02)	A-46	A.4.13
SLD-S-1	L. Brumfield	Afternoon Meeting Transcript (12/03/02)	A-48	A.4.14
SLD-S-2	L. Brumfield	Afternoon Meeting Transcript (12/03/02)	A-27	A.4.2
SLD-S-3	L. Brumfield	Afternoon Meeting Transcript (12/03/02)	A-46	A.4.13
SLD-S-4	L. Brumfield	Afternoon Meeting Transcript (12/03/02)	A-47	A.4.13
SLD-S-5	L. Brumfield	Afternoon Meeting Transcript (12/03/02)	A-49	A.4.14
SLD-T-1	J. Rowley	Afternoon Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-T-2	J. Rowley	Afternoon Meeting Transcript (12/03/02)	A-43	A.4.11
SLD-T-3 <sup>(a)</sup>	J. Rowley	Afternoon Meeting Transcript (12/03/02)	NA	NA
SLD-U-1	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-U-2	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-U-3	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-28	A.4.3
SLD-U-4	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-U-5	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-U-6	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-U-7	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-37	A.4.9
SLD-U-8	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-31	A.4.4
SLD-U-9	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-44	A.4.11

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No.	Speaker or Author	Source	Page Number	Section(s) Where Addressed
SLD-U-10	D. Jernigan	Evening Meeting Transcript (12/03/02)	A-42	A.4.11
SLD-V-1	T. Abbatiello	Evening Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-V-2	T. Abbatiello	Evening Meeting Transcript (12/03/02)	A-25	A.4.1
SLD-V-3	T. Abbatiello	Evening Meeting Transcript (12/03/02)	A-37	A.4.9
SLD-V-4	T. Abbatiello	Evening Meeting Transcript (12/03/02)	A-51	A.4.15
SLD-V-5	T. Abbatiello	Evening Meeting Transcript (12/03/02)	A-29	A.4.3
SLD-W-1	V. Barry	Evening Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-W-2	V. Barry	Evening Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-W-3	V. Barry	Evening Meeting Transcript (12/03/02)	A-53	A.4.15
SLD-W-4	V. Barry	Evening Meeting Transcript (12/03/02)	A-53	A.4.15
SLD-W-5	V. Barry	Evening Meeting Transcript (12/03/02)	A-43	A.4.11
SLD-W-6 <sup>(a)</sup>	V. Barry	Evening Meeting Transcript (12/03/02)	NA	NA
SLD-W-7	V. Barry	Evening Meeting Transcript (12/03/02)	A-43	A.4.11
SLD-W-8	V. Barry	Evening Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-W-9	V. Barry	Evening Meeting Transcript (12/03/02)	A-40	A.4.10
SLD-W-10	V. Barry	Evening Meeting Transcript (12/03/02)	A-30	A.4.3
SLD-X-1	L. Bullington	Evening Meeting Transcript (12/03/02)	A-43	A.4.11
SLD-Y-1	K. Knapp	Evening Meeting Transcript (12/03/02)	A-43	A.4.11
SLD-Z-1	C. Bogacki	Evening Meeting Transcript (12/03/02)	A-34	A.4.7
SLD-AA-1	B. Wells	E-mail (01/04/03)	A-53	A.4.15
SLD-AB-1	G. Hogue	E-mail (01/06/03)	A-71	A.4.17
SLD-AC-1 <sup>(a)</sup>	B. Wells	E-mail (01/06/03)	NA	NA
SLD-AC-2	B. Wells	E-mail (01/10/03)	A-45	A.4.13
SLD-AC-3	B. Wells	E-mail (01/10/03)	A-50	A.4.15
SLD-AC-4	B. Wells	E-mail (01/10/03)	A-53	A.4.15
SLD-AC-5	B. Wells	E-mail (01/10/03)	A-38	A.4.10
SLD-AC-6	B. Wells	E-mail (01/10/03)	A-39	A.4.10
SLD-AC-7	B. Wells	E-mail (01/10/03)	A-39	A.4.10
SLD-AC-8	B. Wells	E-mail (01/10/03)	A-50	A.4.15
SLD-AC-9	B. Wells	E-mail (01/10/03)	A-56	A.4.15
SLD-AC-10	B. Wells	E-mail (01/10/03)	A-56	A.4.15
SLD-AC-11	B. Wells	E-mail (01/10/03)	A-55	A.4.15
SLD-AD-1	J. James	E-mail (01/11/03)	A-50	A.4.15
SLD-AD-2	J. James	E-mail (01/11/03)	A-47	A.4.13
SLD-AE-1	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-2	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-3	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-4	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-5	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-6	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16

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**Table A-2. (cont'd)**

<b>No.</b>	<b>Speaker or Author</b>	<b>Source</b>	<b>Page Number</b>	<b>Section(s) Where Addressed</b>
SLD-AE-7	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-8	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-9	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-10	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-11	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-12	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-13	D. Jernigan	Letter (01/09/2003)	A-71	A.4.16
SLD-AE-14	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-15	D. Jernigan	Letter (01/09/2003)	A-67	A.4.16
SLD-AE-16	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-17	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-18	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-19	D. Jernigan	Letter (01/09/2003)	A-70	A.4.16
SLD-AE-20	D. Jernigan	Letter (01/09/2003)	A-68	A.4.16
SLD-AE-21	D. Jernigan	Letter (01/09/2003)	A-70	A.4.16
SLD-AE-22	D. Jernigan	Letter (01/09/2003)	A-67	A.4.16
SLD-AE-23	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-24	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-25	D. Jernigan	Letter (01/09/2003)	A-70	A.4.16
SLD-AE-26	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-27	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-28	D. Jernigan	Letter (01/09/2003)	A-64	A.4.16
SLD-AE-29	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-30	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-31	D. Jernigan	Letter (01/09/2003)	A-62	A.4.16
SLD-AE-32	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-33	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-34	D. Jernigan	Letter (01/09/2003)	A-64	A.4.16
SLD-AE-35	D. Jernigan	Letter (01/09/2003)	A-64	A.4.16
SLD-AE-36	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-37	D. Jernigan	Letter (01/09/2003)	A-65	A.4.16
SLD-AE-38	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-39	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-40	D. Jernigan	Letter (01/09/2003)	A-65	A.4.16
SLD-AE-41	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-42	D. Jernigan	Letter (01/09/2003)	A-65	A.4.16
SLD-AE-43	D. Jernigan	Letter (01/09/2003)	A-66	A.4.16
SLD-AE-44	D. Jernigan	Letter (01/09/2003)	A-32	A.4.16
SLD-AE-45	D. Jernigan	Letter (01/09/2003)	A-66	A.4.16
SLD-AE-46	D. Jernigan	Letter (01/09/2003)	A-66	A.4.16



Table A-2. (cont'd)

No.	Speaker or Author	Source	Page Number	Section(s) Where Addressed
SLD-AE-47	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-48	D. Jernigan	Letter (01/09/2003)	A-65	A.4.16
SLD-AE-49	D. Jernigan	Letter (01/09/2003)	A-61	A.4.16
SLD-AE-50	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-51	D. Jernigan	Letter (01/09/2003)	A-59	A.4.16
SLD-AE-52	D. Jernigan	Letter (01/09/2003)	A-59	A.4.16
SLD-AE-53	D. Jernigan	Letter (01/09/2003)	A-59	A.4.16
SLD-AE-54	D. Jernigan	Letter (01/09/2003)	A-61	A.4.16
SLD-AE-55	D. Jernigan	Letter (01/09/2003)	A-59	A.4.16
SLD-AE-56	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-57	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-58	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-59	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-60	D. Jernigan	Letter (01/09/2003)	A-59	A.4.16
SLD-AE-61	D. Jernigan	Letter (01/09/2003)	A-64	A.4.16
SLD-AE-62	D. Jernigan	Letter (01/09/2003)	A-61	A.4.16
SLD-AE-63	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-64	D. Jernigan	Letter (01/09/2003)	A-61	A.4.16
SLD-AE-65	D. Jernigan	Letter (01/09/2003)	A-60	A.4.16
SLD-AE-66	D. Jernigan	Letter (01/09/2003)	A-61	A.4.16
SLD-AE-67	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-68	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-69	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-70	D. Jernigan	Letter (01/09/2003)	A-63	A.4.16
SLD-AE-71	D. Jernigan	Letter (01/09/2003)	A-67	A.4.16
SLD-AE-72	D. Jernigan	Letter (01/09/2003)	A-67	A.4.16
SLD-AE-73	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-74	D. Jernigan	Letter (01/09/2003)	A-66	A.4.16
SLD-AE-75	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-76	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-77	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-78	D. Jernigan	Letter (01/09/2003)	A-69	A.4.16
SLD-AE-79	D. Jernigan	Letter (01/09/2003)	A-70	A.4.16
SLD-AE-80	D. Jernigan	Letter (01/09/2003)	A-70	A.4.16
SLD-AF-1	M. Oncavage	E-mail (01/13/03)	A-57	A.4.15
SLD-AF-2	M. Oncavage	E-mail (01/13/03)	A-58	A.4.15
SLD-AF-3	M. Oncavage	E-mail (01/13/03)	A-56	A.4.15
SLD-AF-4	M. Oncavage	E-mail (01/13/03)	A-58	A.4.15
SLD-AF-5	M. Oncavage	E-mail (01/13/03)	A-58	A.4.15
SLD-AF-6	M. Oncavage	E-mail (01/13/03)	A-58	A.4.15

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**Table A-2. (cont'd)**

<b>No.</b>	<b>Speaker or Author</b>	<b>Source</b>	<b>Page Number</b>	<b>Section(s) Where Addressed</b>
SLD-AF-7	M. Oncavage	E-mail (01/13/03)	A-58	A.4.15
SLD-AF-8	M. Oncavage	E-mail (01/13/03)	A-57	A.4.15
SLD-AF-9	M. Oncavage	E-mail (01/13/03)	A-54	A.4.15
SLD-AG-1	F. Leslie	Letter (01/16/03)	A-25	A.4.1
SLD-AG-2	F. Leslie	Letter (01/16/03)	A-44	A.4.12
SLD-AG-3	F. Leslie	Letter (01/16/03)	A-40	A.4.10
SLD-AG-4	F. Leslie	Letter (01/16/03)	A-58	A.4.15
SLD-AG-5	F. Leslie	Letter (01/16/03)	A-56	A.4.15
SLD-AG-6	F. Leslie	Letter (01/16/03)	A-48	A.4.14
SLD-AG-7	F. Leslie	Letter (01/16/03)	A-45	A.4.12
SLD-AG-8	F. Leslie	Letter (01/16/03)	A-26	A.4.1
SLD-AH-1	W. Dobbins	Letter (12/06/02)	A-43	A.4.11
SLD-AH-2	W. Dobbins	Letter (12/06/02)	A-30	A.4.3
SLD-AI-1	H. Mueller	Letter (01/15/03)	A-49	A.4.14
SLD-AI-2	H. Mueller	Letter (01/15/03)	A-49	A.4.14
SLD-AI-3	H. Mueller	Letter (01/15/03)	A-37	A.4.9
SLD-AI-4	H. Mueller	Letter (01/15/03)	A-38	A.4.9
SLD-AI-5	H. Mueller	Letter (01/15/03)	A-38	A.4.9
SLD-AI-6	H. Mueller	Letter (01/15/03)	A-35	A.4.7
SLD-AI-7	H. Mueller	Letter (01/15/03)	A-36	A.4.8
SLD-AI-8	H. Mueller	Letter (01/15/03)	A-33	A.4.6
SLD-AI-9	H. Mueller	Letter (01/15/03)	A-36	A.4.8
SLD-AI-10	H. Mueller	Letter (01/15/03)	A-33	A.4.6

(a) This comment was determined upon later review to either be combined with another comment or to be un-related to the scope of the SEIS.

## A.4 Comments and Responses on the Draft SEIS

### A.4.1 Comments in Support of the License Renewal Process

**Comment:** I want to express my appreciation to those who drafted this report, for including a glossary of the acronyms used in the report. (SLD-B-1)

**Comment:** The Alliance is also very impressed by the systematic and completeness of the report in evaluating the environmental consequences of renewing the licenses for the St. Lucie FP&L Plants 1 and 2, for operation for an additional twenty years. (SLD-B-2)

**Comment:** FPL strongly supports the openness of this process. (SLD-I-1) (SLD-U-1)

**Comment:** I believe that this report has reflected a comprehensive assessment of the environmental impact of license renewal. (SLD-I-2) (SLD-U-2)

**Comment:** The supplemental Environmental Impact Statement for the St. Lucie license renewal provides a thorough examination of ninety-two environmental issues addressed in the regulations. This very broad approach has been thoughtfully designed and is intended to cover the wide spectrum of issues that might be raised by members of the public for governmental review agencies. (SLD-J-1) (SLD-V-1)

**Comment:** The supplemental Environmental Impact Statement concludes that the environmental impacts from operating St. Lucie for an additional twenty years, would be small. This conclusion is based on the detailed analysis of the impact areas. I agree with this conclusion. It is the same conclusion that was made in FPL's environmental report prepared as a part of our application. (SLD-J-2) (SLD-V-2)

**Comment:** I did read the SEIS, Supplement 11 and found it very interesting. And I especially commend that writers of that report for doing such a good job in the field of alternative energy. (SLD-M-1)

**Comment:** And so, in looking at the work that has been done within Supplement 11, the comparison of small, moderate and large impacts on the environment, it appears to me that the nuclear option is the best way to continue and I'm supporting that. (SLD-M-2)

**Comment:** The use of SMALL, MODERATE, and LARGE impact on the environment qualifiers is a good approach to focus on the effect rather than various quantities. (SLD-AG-1)

**Comment:** Table 9-1 displays the SMALL impact of relicensing versus the other replacement power possibilities that range from MODERATE to LARGE impacts. License renewal thus

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appears to be the best action now, and in perhaps twenty years, other energy alternatives may be better suited and economic. (SLD-AG-8)

**Response:** *The comments are supportive of license renewal and its processes and are general in nature. The comments are noted and are consistent with the conclusions in this SEIS. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

### A.4.2 Comments in Opposition to the License Renewal Process

**Comment:** I raised eight public safety issues that needed to be included in the Draft Environmental Impact Statement and not even one of those safety issues are in this draft study. Apparently some individuals of the NRC have great difficulty relating safety and public concerns to their Environmental Impact Statement. Also, I would like someone from the Office of the General Counsel to explain to me exactly which provisions of the National Environmental Policy Act enable the NRC staff to ignore the tremendously dangerous issues that I raised at the scoping meeting. No matter. There are forces at work here well beyond the control of the Nuclear Regulatory Commission and the nuclear industry. (SLD-R-1)

**Response:** *The comment is noted. The commenter states that the issues he raised during the NEPA scoping process were not addressed in the Draft SEIS. The Staff determined in the Scoping Summary Report (ML021160348) dated July 8, 2002, which predated the October 2002 draft SEIS, that the issues raised by the commenter are not related to the environmental consequences of the Federal action (as prescribed in 10 CFR Part 51) to renew a license and will not be considered in the environmental review.*

*As characterized by the commenter, the issues raised are safety issues. NRC's safety responsibilities fall under the Atomic Energy Act, either associated with the current operation of the facility or with the continued operation should the license be renewed. The NRC safety review for license renewal is conducted pursuant to 10 CFR Part 54 and is documented in a safety evaluation report, a separate document from this SEIS, in an inspection report, and in the review by the NRC's Advisory Committee for Reactor Safeguards. One of the principal responsibilities of the NRC is the protection of the health and safety of the public and any safety issue that has a bearing on this responsibility is evaluated. During the course of the environmental review for license renewal, safety issues brought to the staff's attention are referred to the appropriate safety venue for consideration.*

*The commenter also requested that the staff explain why beyond design basis accidents are not evaluated for potential environmental impact under the provisions of NEPA. The environmental review mandated by the National Environmental Policy Act (NEPA) is subject to a rule of reason and as such need not include all theoretically possible environmental effects*

*arising out of an action, but may be limited to effects which are shown to have some likelihood of occurring. Environmental impact statements need not discuss the environmental effects of alternatives which are deemed only remote and speculative possibilities. Additionally, NEPA does not require the preparation of an environmental impact statement for hypothetical accident scenarios based on remote and speculative events.*

*This comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** International affairs show that nuclear electricity is too dangerous, too expensive, and too unreliable to have a meaningful future. (SLD-R-2)

**Response:** *The comment is noted. The comment is not sufficiently specific enough to provide a detailed response. The cost of power is outside the scope of license renewal. Reliability is also outside the scope. Operational safety matters are outside the scope of the NRC's environmental review. An NRC safety review for license renewal is conducted pursuant to 10 CFR Part 54 and will be documented in a safety evaluation report separate from this SEIS. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** You know, I really wish that nuclear power could work, but I don't believe it's working, for the very reasons that I get the willies when I drive by the power plant over on Hutchinson Island. (SLD-S-2)

**Response:** *The comment is noted. The comment is not sufficiently specific enough to provide a detailed response. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

#### **A.4.3 Comments in Support of St. Lucie Units 1 and 2**

**Comment:** The St. Lucie Power Plant provides our industry with a reliable source of electricity. In St. Lucie County, we're not like other areas of the country where you experience brownouts or blackouts. Our industry, as a diversified industry we have here now, relies heavily on a steady source of electricity and a reliable source. (SLD-A-2)

**Comment:** The St. Lucie Plant is among the lowest cost producers of electricity in the FPL system, and this helps keep our electric bills low. And that is one of the attractions to our area for industry. (SLD-A-4)

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**Comment:** Our power bills are more reasonable than most others in the country, in part because of this plant, and we want to keep our power bills low and our quality of life high. (SLD-A-5)

**Comment:** We want to keep the St. Lucie Power Plant as part of our future. The site is already established. They're continuing to operate – the continuation of operating this facility means no new land would be disturbed to construct a new facility to replace this one. (SLD-A-6)

**Comment:** The thing that impresses me most about the St. Lucie Plant is its reputation. I've heard about the good ratings the plant has received through the years from the NRC. (SLD-A-11)

**Comment:** I cannot stress strongly enough our commendations for FP&L's continuing efforts to improve any areas that they find may be having a detrimental effect on the environment, on any portion of their eleven hundred plus acres on the island adjacent to Plants 1 and 2, or along its transmission lines. (SLD-B-4)

**Comment:** The employees at the power plant pose no problem for law enforcement. And they are certainly, as Mr. Anderson pointed out earlier, a great neighbor for us to have here in St. Lucie County. (SLD-D-2)

**Comment:** St. Lucie County Sheriff's Office works closely with the security department out at the plant to ensure that all of those issues that of concern for a lot of people who live in the area out there are taken care of, and that working relationship is a very strong relationship and one that we're very proud of. So on behalf of law enforcement in St. Lucie County, we are in support of license renewal for the power plant. (SLD-D-3)

**Comment:** We're here in support of the Nuclear Regulatory Commission's relicensing of St. Lucie's Unit 1 and 2. We have had a relationship with the power plant for over twenty-three years that during this time we've been able to build a model partnership in relationships between FP&L and the county, and the benefits going both way. We consider St. Lucie Power Plant a partner in our planning, our response and operating, and continuing education in emergency services as well as just good friends, partners and corporate partners. On behalf of Martin County Emergency Services, again, we support the relicensing for Unit 1 and 2. (SLD-E-1)

**Comment:** When I look at the evidence as presented in this supplemental Environmental Impact Statement and other license renewal documents that have been submitted, I'm assured that the plant's safety and a positive impact on our environment exists with these reports and what's contained in them. I believe the case for continued operation of the St. Lucie Plant is strong. (SLD-I-3) (SLD-U-3)

**Comment:** The performance of our power plant is top notch, thanks to our employees, which we've got a couple here in the audience today. Their time, their effort, their dedication have resulted in St. Lucie consistently being recognized as one of the safest and most reliable, and most efficient plants in the United States. Our employees have worked diligently through effective maintenance programs to sustain the option for continued plant operation well beyond the initial forty year license. (SLD-I-4) (SLD-U-4)

**Comment:** The St. Lucie Plant is among the lowest cost of electricity within the FPL system. (SLD-I-6) (SLD-U-6)

**Comment:** The St. Lucie employees want to remain a part of this community. As your neighbors, safe and reliable operation of the St. Lucie Nuclear Plant is our top priority. We believe license renewal makes good sense. It makes good business sense for both FPL and its customers. And in light of the current situation in the world, we also believe that it is the right thing to do for our country. (SLD-J-5) (SLD-V-5)

**Comment:** I would like to add my voice to those today, who are supporting the license renewal for Florida Power and Light St. Lucie Nuclear Power Plant. (SLD-K-1)

**Comment:** Some folks, a lot of folks have come before me today, to reiterate the reasons why they support Florida Power and Light. Why? Because the St. Lucie Plant is important to the community. The St. Lucie Plant benefits our local economy tremendously. The St. Lucie Plant has been an excellent partner and neighbor, be it community or in business. The St. Lucie has conscientious, dedicated and well trained employees. (SLD-L-1)

**Comment:** The St. Lucie Plant has been and has a good environmental record. (SLD-L-2)

**Comment:** We were convinced after a few years that the power plant, Florida Power and Light power plant was a good entity in our county. Yes, they have questions about the power plant and there will always be questions about the power plant. (SLD-Q-1)

**Comment:** I want to stop and have you to recognize that the plant does provide, as far as I'm concerned, a safe, clean – safe and clean electricity. (SLD-Q-3)

**Comment:** I understand that the FP&L plant is among the lowest cost producers of electricity and that is good, because when the rate for electricity goes up too high, then we will suffer. I would like for the St. Lucie Plant to keep electric bills low. (SLD-Q-4)

**Comment:** It is my understanding that, for more than one reason, that the power plant is here. Someone was seeking a better way to provide electricity, other than the coal and the oil that we were living on at one time. And as a member of this community, I would like to see the power

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plant continue to be a part of our future. The location of the plant, we cannot do anything about that. I think now that we're in a position that we could stop the increased number of units at the plant, but so far as doing something about the plants that are already there, I don't believe we will be able to that. (SLD-Q-6)

**Comment:** I have been told by some authoritative sources that the power plant workers are very dedicated persons and well trained. I'm going to live on that fact. (SLD-Q-8)

**Comment:** I think this nuclear power plant is the best thing for our community environment, as some of you all have been saying. (SLD-Q-10)

**Comment:** I can't worry about what's going to happen all over the world, all over the United States, but I know FP&L here and our power plant, they look after our safety. (SLD-T-1)

**Comment:** During that time we have relied on Florida Power and Light and the St. Lucie Nuclear Plant to supply us with low cost, safe and reliable electricity. They have never failed to fulfill that responsibility. (SLD-W-1)

**Comment:** We also have enjoyed great credits, by participating in the Florida Power and Light on-call program. With this program our water heater and our air conditioning system are wired such, that during peak loads Florida Power and Light can remotely disrupt our service for short periods of time. To date, if they have activated the system, we are unaware of it, and it has caused us no inconvenience. (SLD-W-2)

**Comment:** Adding to their economic and civic achievements, the St. Lucie Nuclear Plant has always maintained a strong commitment to the environment. Their emphasis on the South Florida ecosystem have resulted in designing and maintaining a facility that compliments a friendly relationship of the two. (SLD-W-8)

**Comment:** The twenty-five year history of the St. Lucie Nuclear Plant has been excellent for the community, for the environment and its wildlife, and for the people. We have got something very good here and when you have something good you stick with it. (SLD-W-10)

**Comment:** However, the most important economic impact of the St. Lucie Plant is the inexpensive consistent power which it provides to our area. In the past, business took those power for granted, however, with the recent events in California, and the potential for disruptions to our oil supply caused by events in the Middle East, we are especially lucky to have the St. Lucie Nuclear Power Plant in our County. (SLD-AH-2)



**Response:** *The comments are noted. The comments are supportive of license renewal at St. Lucie Units 1 and 2, and are general in nature. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

#### **A.4.4 Comments Concerning Air Quality Issues**

Comment: We [FPL] can continue to produce clean electricity without air pollution or greenhouse gases. (SLD-I-8) (SLD-U-8)

**Response:** *The comment is noted. Emissions are regulated through air quality permits issued by the U.S. Environmental Protection Agency and the State of Florida. Air quality is discussed in Section 2.0 of this SEIS. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

#### **A.4.5 Comments Concerning Groundwater Use and Quality Issues**

**Comment:** Page 4-33, line 1-22: In this paragraph, the NRC addressed groundwater use conflicts (potable and service water; plants that use > 379 l/min [>100 gpm]) as an applicable Category 2 issue, citing the indirect withdrawal of groundwater at the St. Lucie site in excess of 100 gpm as the basis. This determination is not consistent with the scope of this issue as defined in the GEIS and codified by 10 CFR 51. NRC in GEIS Section 4.8.1, "Groundwater Use," states, "This impact could occur as a direct effect of pumping groundwater, ..." (emphasis added). Furthermore, the specific concern for this issue is that the cone of depression associated with direct pumping of groundwater onsite could potentially extend beyond the plant boundaries and impact offsite groundwater users. Section 4.8.1 of the GEIS limits the scope of this issue to the direct use of groundwater and acknowledges that the indirect use through municipal supply is not of concern. Therefore, analysis of this issue should not be expanded to include indirect use. Accordingly, this section should state that there are no Category 2 issues applicable to St. Lucie Units 1 and 2 during the license renewal term. The statement on line 2, "There are no Category 1 issues applicable to groundwater use and quality for St. Lucie Units 1 and 2 during the renewal term." is incorrect. The issue "Groundwater quality degradation (saltwater intrusion)" is a Category 1 issue that is applicable to St. Lucie. NRC in GEIS Section 4.8.2.1 characterizes this issue as Category 1 and discusses the potential for indirect impacts of St. Lucie's use of municipal supply, which uses groundwater as the source water. Consistent with other sections, the table presented in this section should identify this issue as an applicable Category 1 issue. The 10 percent threshold used in NRC's discussion (lines 4-6) is not correctly applied given the discussion is relative to the Category 2 issue of groundwater use conflicts. This threshold was specifically used by NRC in the GEIS for the impact significance of groundwater quality relative to saltwater intrusion (See GEIS Section 4.8.2.1). The GEIS does not provide such a threshold for evaluating impacts from the direct use of groundwater. This section should be revised to address the applicable Category 1 issues and state that there are

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no Category 2 issues applicable to St. Lucie Units 1 and 2. Accordingly, Table 4-8 should be deleted and it should be noted that the GEIS section cited for the Category 2 issue listed in this table should only be Section 4.8.1.1. GEIS Section 4.8.2.1 addresses the Category 1 issue regarding saltwater intrusion. (SLD-AE-44)

**Response:** *The comments are noted. The staff agrees that groundwater quality degradation (saltwater intrusion), a Category 1 issue, is applicable to the license renewal review for St. Lucie and the text and table in Section 4.5 of the SEIS have been revised.*

*The staff agrees that there are no Category 2 issues related to groundwater use and quality. In the draft SEIS, the staff identified as a Category 2 issue the issue of groundwater use conflicts (potable and service water; plants that use >379 l/min [>100 gpm]). The value for potable and service water usage for the plant, given in Section 4.5, on page 4-33 of the draft SEIS was incorrect. The correct value, given in Section 2.2.2 of the draft SEIS, is  $4.98 \times 10^5$  L (131,000 gal) per day or 346 l/min (91 gpm). Thus, the potable and service water usage for the plant is, in fact, less than 379 l/min (100 gpm). Therefore, this Category 2 issue is not applicable to the St. Lucie license renewal review.*

*Although the groundwater use issue is not a Category 2 issue, it does constitute a Category 1 issue. The staff considers that the Category 1 issue of groundwater use conflict (potable and service; plants that use <379 l/min [<100 gpm]) applies to St. Lucie because its potable and service water usage is 346 l/min (91 gpm). 10 CFR Part 51, Subpart A, Appendix B identifies this impact as SMALL. Plants using less than 100 gpm are not expected to cause any groundwater use conflicts. The SEIS has been revised to identify this issue as a Category 1 issue.*

*The staff notes that it disagrees with the commenter that the intent of the GEIS is to limit consideration of the issue of groundwater conflicts to only those facilities that withdraw the water directly from the aquifer, and to exclude from consideration groundwater impacts for those facilities that obtain the water from a municipal water supply that withdraws the water from the same aquifer, as is the case with St. Lucie. The concern is not only the cone of depression in the immediate vicinity of the plant, although the drawdown at the plant perimeter is frequently used as a metric of impacts on the regional groundwater flow pattern, but the overall reduction in stability of the groundwater supply.*

*In summary, the staff has defined the groundwater use conflicts as a Category 1 issue for St. Lucie and has included it in the SEIS along with the groundwater quality issue related to saltwater intrusion. The comments resulted in changes to the table and text of Section 4.5.*

#### A.4.6 Comments Concerning Surface Water Quality Issues

**Comment:** Applying herbicides and weed killers can impact surface and groundwater resources. This is of concern at this site, since groundwater is generally very shallow there. (SLD-AI-8)

**Response:** *The comments are noted. As stated in the text, the applicant primarily uses herbicides in the form of spot applications to prevent re-sprouting of trees that may interfere with the electrical conductors. Much less often, the applicant will use broadcast applications to control exotic grasses. The types, quantities, and application frequency depend on the particular maintenance problem at hand. Mowing and trimming are always the applicant's preferred forms of right-of-way maintenance. When herbicide use is required, the applicant buys, applies, and disposes of the chemicals in accordance with the label instructions for each product and with all applicable Federal and State regulations. These regulations are designed to protect human health, as well as wildlife and surface or groundwater resources. All herbicide applications are performed under the supervision of licensed pesticide applicators to ensure compliance with Federal and State regulations. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Water Quality: Section 2.2.3 briefly discusses the NPDES status of the facility. Requirements for the National Pollution Discharge Elimination System (NPDES) and Industrial Wastewater Facility permits should be outlined in the Final GSEIS. (SLD-AI-10)

**Response:** *The comment is noted. A brief description of the requirements of the NPDES permit has been added to the SEIS text. The comment resulted in modification of the SEIS text.*

#### A.4.7 Comments Concerning Aquatic Ecology Issues

**Comment:** I know that there were periodic discharges of radioactive water into Lake Erie. And I remember, you know, there were always these reassurances that that's no concern to the human population. But I, you know, when I would see hundreds of dead fish wash up on my beach right after that, I was not reassured. And then just recently, you know, we've heard about, you know, problems with that facility in Ohio. (SLD-N-5)

**Response:** *The comment is noted. The commenter was drawing an analogy between a nuclear plant on Lake Erie and the St. Lucie plant. The comment concerns a Category 1 issue: effects of radiological emissions on aquatic biota near St. Lucie Units 1 and 2. The radiological release standards for humans are sufficiently protective to ensure that non-human biota are not adversely affected. The dead fish seen in Lake Erie were not due to radiological releases from the nuclear industry, but more likely due to cold shock, low dissolved oxygen, or possibly, pollution. Aquatic ecology is discussed in Section 2.0, and environmental impacts of operation*

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*are discussed in Section 4.0 of this SEIS. There have been no fish kills related to radiological discharges at the St. Lucie plant. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** I just want to let you know the posted radioactive material settlement pond that is on the FP&L site outside of the radiation control area – and FP&L is doing a great job on the St. Lucie site – but I would like to see the settlement pond that is open to all the wildlife, have some attention to make this settlement pond de-posted as radioactive material area that is open to the wildlife, and adhere to the environmental issues that may impact that. (SLD-Z-1)

**Response:** *The comment is noted. The comment is not within the scope of 10 CFR Part 51 requirements for the environmental review associated with the application for license renewal at St. Lucie Units 1 and 2. Nevertheless, the staff evaluated this issue in some detail because of the potential concern regarding the spread of radioactive contamination. The contamination of the sediment in the East Evaporation/Percolation (EP) Pond resulted from a spill of slightly contaminated water within the plant in 1977. In 1992, the NRC staff conducted an inspection of the pond and the licensee's actions to minimize the spread of contamination from the pond. The results of that inspection are contained in inspection reports 50-335/92-15, 50-389/92-15, 50-335/92-22, and 50-389/92-22. These reports establish that no violations of NRC requirements were identified during the inspection.*

*Subsequent to the December 3, 2002, public meeting on the draft SEIS for St. Lucie, during which the commenter voiced his concern, the NRC staff determined that the pond was posted properly and controlled in accordance with NRC regulations and plant procedures. The East EP Pond is entirely within the station protected area and, as such, is inaccessible to members of the public. Water in the pond is sampled for radioactive material periodically. Pond sediment samples have been taken infrequently and have always shown negligible amounts of radioactive material. In response to the staff's inquiries, late in 2002, the licensee collected several samples of pond sediment for evaluation on January 31, 2003. The results of the isotopic analysis revealed the presence of trace amounts of cesium-137 in the pond's sediments. The levels in the pond sediment are below the effluent release limits stated in 10 CFR Part 20, Appendix B, Table B-2, under "Effluents," "Air," and "Water." These are applicable to the assessment and control of dose to the public from radioactive effluents. The effluent release concentrations for water are designed to provide a safe drinking water standard. The pond is not used for domestic water, there are no nearby groundwater withdrawal wells that are used for potable water, and there are no other uses of the pond that would create a pathway to members of the public.*

*The concern over wildlife and the spread of contaminants through groundwater and/or biota (e.g., waterfowl species wading in the pond and becoming contaminated due to contact with the sediments) was also investigated by the staff. Because the concentrations of the radionuclides*

*in the sediments are so low and it is likely that contaminated sediments will become buried by sediment inflow from the site over time, the staff does not believe that transient biota using the pond would be a significant pathway for the spread of contamination to uncontaminated areas around the plant site. Radionuclide patterns of spatial/temporal distribution in the surrounding area directly correlated to the contaminated pond have not been documented. No effort has been made to remediate or remove contaminated sediment. However, the licensee has adequate records and retention programs as required by 10 CFR 50.75(g)(1) to ensure that the area will be identified during plant decommissioning.*

*At the time of decommissioning, the licensee is required to submit a License Termination Plan which contains information on the types and quantities of radioactive materials on the site. Decommissioning will ensure that all areas of the site, including the settlement pond, meet the site release criteria specified in 10 CFR Part 20 prior to license termination.*

*In summary, the staff has determined that the East EP Pond is properly posted and does not pose any immediate risk to public health and safety. The use of the pond by transient biota will not result in the unacceptable spread of contamination and the licensee has adequately characterized the contamination in the pond. Lastly, there is assurance that the contamination will be appropriately remediated at the time of site decommissioning. The staff does not plan to pursue the issue further unless new information is obtained that would bring into question the staff's conclusions.*

*The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Fish: We note the concerns regarding anoxic conditions at the bottom of Big Mud Creek, where the water depth exceeds 40 feet. Fish kills have been reported in that area, and the Florida Department of Environmental Protection recommended that the creek be filled to a more environmentally-friendly depth (page E-8 of the document). Clarification should be provided in the Final GSEIS regarding the origin of the anoxic conditions mentioned, and the planned or implemented measures to avoid impacts to fish in the area. (SLD-AI-6)

**Response:** *The comment is noted. Big Mud Creek was dredged during plant construction to provide deep water access to the Intra-Coastal Waterway. When infrequent barge access to the plant is needed the channel is measured for depth and actions taken as required. In addition Big Mud Creek provides water for the plant ultimate heat sink. Reported fish kills in the area of Big Mud Creek mostly occur east of State Road A1A (personnel communication with James R. David, Mosquito Control Director, St. Lucie County, Florida). The dredged area is west of State Road A1A. According to Mr. David, the fish kills that have occurred east of the highway are the result of wind-generated turnover of anoxic waters in the shallow areas of the creek. These wind-generated turnovers do not appear to occur in the deep waters west of the highway. Fish*

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*kills have occurred in Big Mud Creek, west of the highway, caused by cold water in the creek during extremely cold weather. One the more popular sports fish species in this area is the common snook (Centropomus undecimalis), which spawns primarily in summer and cannot tolerate water temperatures below 15 °C (60 °F). Snook can tolerate wholly fresh or saltwater and is found in schools along the shore and in passes during spawning season. The cold water kills in Big Mud Creek are not related to the operations of St. Lucie Units 1 and 2 or the depth of Big Mud Creek. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

### **A.4.8 Comments Concerning Terrestrial Ecology Issues**

**Comment:** Herbicides: According to Page 2-15, Power Transmission System, herbicides are used in the transmission right-of-way. The Final GSEIS should specify the types and quantities of herbicides applied, and the alternatives to spraying plants with defoliant. Similarly, the FGSEIS should include details regarding broadcast applications for weed control (types, frequency, quantities, alternatives to chemical applications, etc.). (SLD-AI-7)

**Comment:** Applications of herbicides in and around residential areas could potentially impact sensitive populations. In addition, some herbicides may also cause potential adverse impacts to wildlife. (SLD-AI-9)

**Response:** *The comments are noted. As stated in Section 2.1.7 of the text, the applicant primarily uses herbicides in the form of spot applications to prevent re-sprouting of trees that may interfere with the electrical conductors. Much less often, the applicant will use broadcast applications to control exotic grasses. The types, quantities, and application frequency depend on the particular maintenance problem at hand. Mowing and trimming are always the applicant's preferred forms of right-of-way maintenance. When herbicide use is required, the applicant buys, applies, and disposes of the chemicals in accordance with the label instructions for each product, and in accordance with all applicable Federal and State regulations. These regulations are designed to protect human health, as well as wildlife and surface or groundwater resources. All herbicide applications are performed under the supervision of licensed pesticide applicators, to ensure compliance with these Federal and State regulations. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

### **A.4.9 Comments Concerning Threatened or Endangered Species Issues**

**Comment:** One of our [The Alliance's] primary concerns in the past has been the offshore ocean intake structures. The company, by installing and maintaining three barriers of these intake structures to reduce potential loss of marine life, particular sea turtles, and to facilitate

their return to the ocean recognized our concerns. The addition and construction of a new smaller mesh barrier east of the larger mesh barriers, plus an active program, including recovery of turtles from the intake canal, has greatly reduced any harm to entangled turtles. FP&L's program, which includes recovery of turtles from the intake canal and barrier nets, are monitored seven days a week, eight to twelve hours a day, by Quantum Resources is exemplary. (SLD-B-3)

**Comment:** And from an environmental standpoint, the St. Lucie Plant remains a guardian of our natural resources. Our outstanding sea turtle programs are recognized throughout the year by the Governor. (SLD-I-7) (SLD-U-7)

**Comment:** FPL is proud of the work we do to preserve and protect the environment. The sea turtle protection and preservation program will continue during the license extension period. (SLD-J-3) (SLD-V-3)

**Response:** *The comments are noted. Sea turtles are protected under the Endangered Species Act and are evaluated as a threatened or endangered species (a Category 2 issue) in Section 2.2 and 4.6 of this SEIS. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** We note that federally-protected species are listed for the area by the U.S. Fish and Wildlife Service (FWS). EPA principally defers to the FWS regarding endangered species assessments and encourages NPS to continue coordination with the FWS as appropriate. (SLD-AI-3)

**Response:** *The comment is noted. Managing impacts to threatened or endangered species at St. Lucie Units 1 and 2 is an ongoing process involving coordination among the NRC, FPL, FWS, and NMFS. Both FWS and NMFS have responsibility for Federally-protected species that occur at St. Lucie. Section 4.6 describes the staff's actions related to compliance with Section 7 of the ESA for Federally listed species. The NRC will continue to maintain its compliance with the ESA through consultation with State and Federal agencies through the operating life of the St. Lucie plant as appropriate. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** A March 6, 2002 letter on page E-8 of the document states that the Florida Fish and Wildlife Conservation Commission (FWC) [sic] planned to review Big Mud Creek to determine whether additional manatee protection measures were warranted. FWC [sic] stated that they wanted to formalize a protocol with Florida Power & Light Company for the capture and recovery of manatees entrained in the power plant's intake canal. The DSEIS discusses past incidents when manatees entered the intake canal on infrequent occasions and were rescued. As a follow-up to this issue, the Final GSEIS should include updated information regarding measures

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to protect the manatee in the vicinity of St. Lucie, and the outcome of any pertinent studies regarding Big Mud. (SLD-AI-4)

**Response:** *The comment is noted. Information regarding manatees has been added to the text of Section 4.6.1.2 of this SEIS in response to this comment. The comment resulted in modification of the SEIS text.*

**Comment:** Due to the presence of threatened and endangered species in the area, consultations with the appropriate agencies will need to continue throughout the operating life of the facility, in order to avoid and mitigate impacts. (SLD-AI-5)

**Response:** *The comment is noted. The NRC will continue to maintain its compliance with the Endangered Species Act through consultation with State and Federal agencies throughout the operating life of the St. Lucie plant as appropriate. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

### A.4.10 Comments Concerning Human Health Issues

**Comment:** What class of individuals, what age, weight, sex or other attributes, working or living no more than seven miles from the plant, has been determined to be the most vulnerable to so-called normal plant radiation emissions?

What is the difference between the population living within a fifty-mile radius of the site in the year 2000, and when the plants began operation, and what was the fifty mile radius population predicted for the year 2000, at the time of the first hearings? (SLD-P-5) (SLD-AC-5)

**Response:** *The comment is noted. It is not easy to identify the one most vulnerable group because every individual is different (age, health, and a variety of other factors). However, the NRC's regulatory limits for radiological protection are set to protect all workers and the public from the harmful health effects of radiation on humans. The limits are based on the recommendations of standards-setting organizations. Radiation standards reflect extensive study by national and international organizations (e.g., International Commission on Radiological Protection [ICRP], National Council on Radiation Protection and Measurements, and National Academy of Sciences) and are conservative to ensure that the public and workers at nuclear power plants are protected. The NRC radiation exposure standards are presented in 10 CFR Part 20, "Standards for Protection Against Radiation," and are based on the recommendations in ICRP 26 and 30. Numerous scientifically designed, peer-reviewed studies of occupational levels of radiation (versus life-threatening accident doses or medical therapeutic levels) have shown minimal effects on human health, and any effect was from exposures well above the exposure levels of the typical member of the public from normal operation of a nuclear power plant.*



*When the Final Environmental Statements (FESs) for St. Lucie Units 1 and 2 were completed in the early 1970's, the 80-km (50-mi) population was over 300,000 and expected to be 446,000 by 1980, when Unit 2 was expected to come online. The FESs estimated that the 2000 80-km (50-mi) population would be greater than 740,000. The 2002 FPL Environmental Report (ER) stated that the 80-km (50-mi) population was 1,180,000 for the year 2000, or almost 40 percent higher than originally estimated in the FESs. Therefore, the difference between the population in 2002 (1,180,000) from that when the plant began operation (300,000) is 880,000 people. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** At the thirty year ago public hearings, concern was expressed over studies which showed the likelihood of a high concentration of radioactive iodine in the milk of nursing mothers and in milk goats living close to the plant, along Indian River Drive. Goats were said to have seven times the concentration of that of milk cows. Have new studies been done to answer these concerns or have procedures been adopted for monitoring and/or notifying lactating women or goat farmers? (SLD-P-6) (SLD-AC-6)

**Comment:** Parents of St. Lucie County children, who seem to have a high incidence of tumors, were seeking answers a few years ago as to whether there was a nuclear plant emissions connection. Have these questions been resolved? (SLD-P-7) (SLD-AC-7)

**Response:** *The comments are noted. Numerous scientifically designed, peer-reviewed studies of personnel exposed to occupational levels of radiation have shown minimal effects on human health, and any effects were from exposures well above the exposure levels of the typical member of the public from normal operation of a nuclear power plant. The radiation effects of normal reactor operation on human health are Category 1 issues.*

*The State of Florida conducts a radiological environmental monitoring program in the environs of St. Lucie Units 1 and 2; as part of this program, samples of foods such as milk from dairy animals (cows and goats) are monitored for radioactive material. As part of the environmental review, the NRC staff reviewed reports from this program for the last several years. Based on data contained in these reports, there has been no indication of elevated iodine-131 or strontium-90 levels in cow or goat milk.*

*At the request of Congress, the National Cancer Institute (NCI) conducted a study in 1990, "Cancer in Populations Living Near Nuclear Facilities," to look at cancer mortality rates around 52 nuclear power plants, nine Department of Energy facilities, and one former commercial fuel reprocessing facility. The NCI study concluded, "from the evidence available, this study has found no suggestion that nuclear facilities may be linked causally with excess deaths from leukemia or from other cancers in populations living nearby." In addition, the American Cancer Society has concluded that although reports about cancer case clusters in such communities*

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*have raised public concern, studies show that clusters do not occur more often near nuclear plants than they do by chance elsewhere in the population.*

*Based on the analysis in the GEIS, the Commission made a generic determination that the radiation effects of normal reactor operation during the renewal term on human health would be SMALL. The staff has not identified any significant new information related to the radiation aspect of human health in the ER, the scoping process, its independent review, or in this comment that would call the conclusions of the GEIS in question. Therefore, the staff relies on those conclusions, as amplified by supporting information in the GEIS related to the radiation effects of normal operation during the renewal term on human health. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** They [the State of Florida] have continually found both the air and the water surrounding the plant meets their standards and those of the Federal Government. (SLD-W-9)

**Response:** *The comment is noted. The comment is supportive of license renewal at St. Lucie Units 1 and 2, and is general in nature. Any potential non-compliance of monitoring requirements is an operational safety issue, handled through the inspection and reporting process and is not within the scope of license renewal. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Plant safety/security comments: Discuss and clarify recent USA Today stories about a SANDIA report discussing offsite radiation release plumes of 500 miles extent rather than the 50 mile limit used in the Supplement. The radiation levels at varying distances must have great meaning. While the St. Lucie plant has clearing of a potential plume release by westerly weather winds, it also has easterly to southeasterly sea breeze winds that could send a release plume across the state towards Orlando or Tampa. (SLD-AG-3)

**Response:** *The comment is noted. The staff assumes that the article referred to in the comment was the November 11, 2002 article in USA Today entitled "Study warns of 500-mile radiation spread." The newspaper article refers to a "special report prepared by experts within the NRC and the Sandia National Laboratory." Actually, the report was prepared by the NRC staff with help from the Sandia, Argonne, and Idaho National Engineering and Environmental Laboratory. The report is entitled Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants (NUREG- 1738), and was published in February 2001. The study determined that the risk from severe (i.e., beyond design-basis) spent fuel pool accidents is low because of the very low likelihood of a zirconium fire (the scenario analyzed in the study) in the spent fuel pool. The study evaluated the consequences of such a spent-fuel-pool accident in part using the MACCS2 computer code. The MACCS2 code models the dispersion of radionuclides after a release and its consequences on the surrounding human*

population. Input parameters for the MACCS2 code include radionuclide inventories, radionuclide release fractions, evacuation and relocation criteria, and population density. Appendix 4 of NUREG-1738 provides a series of tables that summarize the mean consequences for a base case along with a number of sensitivity cases to evaluate the impact of alternative model assumptions. These tables provide data on prompt fatalities and long-term fatalities for distances from 0 to 160 km (0 to 100 mi) and 0 to 800 km (0 to 500 mi) from the point of release of the contamination. The long-term fatalities are derived from the collective dose calculated by the computer code to the surrounding population. A simple conversion of dose to cancer fatalities was used to determine the long-term fatalities for each case for each different decay time.

These calculations use the concept of collective dose, which assumes that a small radiation dose spread among a large population would yield effects similar to a much larger dose among a much smaller population. This is a very conservative assumption. The Health Physics Society, [www.hps.org](http://www.hps.org), states: "Below the dose of (0.1 Sv) ten rem, estimations of adverse health effect is [sic] speculative. Collective dose remains a useful index for quantifying dose in a large population and in comparing the magnitude of exposure from different radiation sources. However, for a population in which all individuals receive lifetime doses of less than (0.1 Sv) 10 rem above background, collective dose is a highly speculative and uncertain measure of risk and should not be quantified for the purposes of estimating population health risks." Using a collective dose at the extreme distances reported in NUREG-1738 significantly overestimates long-term fatalities. In actuality, there would be no increase in long-term health effects attributable to the release beyond 80 km (50 mi). Therefore, the use of a 50-mile radius in the SEIS for St. Lucie to estimate population doses from routine and accidental releases is appropriate. The comment provides no new information; therefore, it will not be evaluated further. There was no change to the SEIS text.

#### **A.4.11 Comments Concerning Socioeconomic Issues**

**Comment:** The St. Lucie Plant employees are leaders in contributions to the local area agencies such as the United Way. They support the St. Lucie County Education Foundation in a scholarship program. The employees are involved in youth development through Scouts, Little Leagues, civic and church programs and activities. The employees volunteer for Habitat for Humanity in building homes for low income residents. (SLD-A-8)

**Comment:** The plant's information center, the Energy Encounter, holds forty thousand visitors annually. In addition to hands-on science programs for schools, the center offers free workshops to teachers for training credits and walk-in visitors are always welcome. The power plant donates computers and school supplies to local schools. And FP&L has made substantial contributions to the county's regional sports stadium, which is located in St. Lucie West. And the

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St. Lucie County Marine Center that features the Smithsonian Marine Eagle System exhibit, as well as many other community projects. (SLD-A-9)

**Comment:** And we [The St. Lucie County Fire District] feel as though they've been a great corporate partner in the enhancement of the training and the safety of the citizens of St. Lucie County, and we support relicensing of the power plant. (SLD-C-1)

**Comment:** And we're [The St. Lucie County Sheriff's Office] happy to say that on all of those fronts, FP&L is not a problem for us and in fact, it is a great benefit to the county and our efforts, as far as the safety and security at the plant, and also the impact that they have on our community from a crime basis. (SLD-D-1)

**Comment:** There are many reasons the plant should continue operating. Part of it is the importance to our community as was stated earlier, being a good neighbor, and it also has had a good environmental record as been pointed out. (SLD-F-1)

**Comment:** I'm here today to speak as somebody who has lived here in this community for thirty years and seen the kind of partner and good neighbor that FP&L is to our community and our families here. And I've seen that firsthand, both through the school system and all of the things that FP&L does, from the Energy Encounter, to training kids, to the supplies and materials that they donate, to the manpower that they donate, to school system committees, to the help, and support, and resources they provide for community agencies such as Big Brothers, Big Sisters and United Way, so I truly support the license renewal. (SLD-H-1)

**Comment:** But more importantly is a role that the people at the power plant have played in this community. Our employees are active in their churches, and scout organizations, and PTAs, and Little Leagues, and even in local government. (SLD-I-10) (SLD-U-10)

**Comment:** I know personally, several of the employees at the plant, who donate their time and their money to making our communities better places to live. They contribute hundreds of thousand of dollars and volunteer hours each year to charitable organizations on the Treasure Coast, including the United Way, and are making a huge difference in our communities. (SLD-K-4)

**Comment:** I probably agree with practically all of the positive statements that were made by various people who spoke before me today, that Florida Power and Light has been a good neighbor, and they certainly contributed to the economy of the county. (SLD-P-1)

**Comment:** It [the plant] has been a good neighbor. (SLD-Q-7)

**Comment:** They're good community partners, very active. Their employees are very active. Their management is very active. They've been involved in so many aspects of St. Lucie County and the counties around us. I feel it's very important that they approve the operating license for the St. Lucie Power Plant. (SLD-T-2)

**Comment:** The St. Lucie Nuclear Plant is a good neighbor, contributing aggressively to our local community, both economically and with countless civic activities. The plant and its employees are involved in everything, from Little League, to United Way, to Habitat for Humanity, and impacts this community with more than eighty million dollars annually. (SLD-W-5)

**Comment:** I recently became aware of the splendid programs that the St. Lucie plant Energy Encounters Program conducts. These programs offer hands-on science programs for school, offering free three day work shops to teachers for teaching skills and training credits, free science field trips for elementary and middle school children, as well as continually donating computers and supplies to the local schools. (SLD-W-7)

**Comment:** The Boy Scouts, Big Brothers, Hospice, United Way, is contributing from these fellows and also many – in the area, many hours put together for these gentlemen. (SLD-X-1)

**Comment:** For many years now the folks at FP&L have played and continue to play an important role in the operation of our United Way. Year after year Florida Power and Light, and the IBEW Local 627 supports us by giving of their time and energy. FP&L allows their employees to help us in so many ways. They sit on governing boards of the United Way. They allow their employees to become loan executives. They chair our United Way campaigns. Volunteers help us not only with their own campaign inside the nuclear plant, but they also help us conduct many outside throughout the community. (SLD-Y-1)

**Comment** The St. Lucie Plant is an important member of our business community. They contribute to many local non-profits, such as the St. Lucie County Education Foundation, The United Way, The St. Lucie County Marine Center and the Economic Development Council of St. Lucie County. The St. Lucie Plant also has a major economic impact on our area, both directly as one of the County's largest sources of property taxes, and indirectly through the jobs that the plant provides. The St. Lucie Plant currently has 800 full-time employees, and these are good jobs for our community. I am told that the economic impact of the plant on our local community is \$80,000,000.00 annually. (SLD-AH-1)

**Response:** *The comments are noted. The comments are supportive of license renewal for St. Lucie Units 1 and 2. Public services are evaluated in the GEIS and determined to be a Category 1 issue. Information regarding the impact of socioeconomic issues is discussed in*

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*Section 4.0 of this SEIS. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** If the St. Lucie Plant were closed, the loss of eight hundred full-time jobs in our community would be devastating to our economy. (SLD-A-1)

**Comment:** The impact of the St. Lucie Plant on our local economy is more than eighty million dollars annually. (SLD-A-10)

**Comment:** We've [FPL] asked our neighbors and they've told us that we're an important economic factor in this community, one that they want to see remain as a viable contributor. The payroll for around eight hundred employees, the tax dollars, the property taxes, the purchases, the contributions to the local United Way agencies help in this area. (SLD-I-9) (SLD-U-9)

**Comment:** As one of the largest employers in our area, the St. Lucie Power Plant is important to our local economy. A business of this size would be very difficult to replace. (SLD-K-3)

**Comment:** The importance of the plant to the community. Now, yes, we know that St. Lucie County is one of the fastest growing counties in the State of Florida and maybe the nation, now that we have entities coming in that are supplying jobs and, of course, the Florida Power and Light Company is employing something in the neighborhood of eight hundred to nine hundred people. (SLD-Q-2)

**Response:** *The comments are noted. Effects on the local economy due to license renewal are considered as a Category 2 issue in the GEIS and are examined on a site-specific basis in Sections 2.0 and 4.0 of this supplement to the GEIS for St. Lucie Units 1 and 2. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

### **A.4.12 Comments Concerning Severe Accident Mitigation Alternatives Analysis**

**Comment:** More emphasis upon the risk calculations is desirable to clarify the probability of possible events in the context of everyday risks such as driving to work. The public perceives risks to be far worse when they don't choose those risks. As example, a mountain climber may rail against the risk of a city street air pollutant or second-hand smoke, or joggers may choose to run alone and unarmed in mountain-lion country. (SLD-AG-2)

**Response:** *The comment is noted. Evaluation of risk is routinely used in evaluation of operational safety consideration at nuclear plants. Such risk calculations are used routinely to establish maintenance frequencies, surveillance requirements, and the need to modify or upgrade components important to safety. This SEIS is not the appropriate document to provide*

*a detailed discussion on environmental risk aversion by members of the public. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Catastrophic extremes (site failure core meltdowns) may have lower computed impact costs than meteor strikes or tsunamis; Should we take action to preclude those and similar events? (SLD-AG-7)

**Response:** *The comment is noted. Actions to avert risk are societal decisions that are often influenced by other considerations (risk is defined technically as the probability of an event occurring times the consequences should that event occur). Clearly, actions could be and have been taken to protect structures, systems, and components at nuclear plants from tsunamis along the west coast of the United States but not at a plant located in Nebraska, even though there is a calculated probability of occurrence of a tsunami impacting a nuclear plant in Nebraska. The probability is so low the possibility of its occurrence may be ignored. Likewise, the probability of occurrence of a meteor strike is sufficiently low that no actions are taken to limit consequences.*

*Section 5.1.2 of the SEIS discusses severe accidents that could result in substantial damage to the reactor core. A licensee is required as part of the environmental review to evaluate alternatives to mitigate severe accidents if they have not done so already. No analysis had been done for these facilities, so the licensee, as part of license renewal, submitted such an analysis for NRC review. The NRC staff has reviewed severe accident mitigation alternatives for St. Lucie Units 1 and 2, and the results are presented in Section 5.2 of this SEIS. The analysis does, in fact, make a cost-beneficial comparison of plant improvements versus cost in reducing the risk of core damage (see Section 5.2.5 of this SEIS). The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

#### **A.4.13 Comments Concerning Uranium Fuel Cycle and Waste Management Issues**

**Comment:** Nuclear waste, particularly long lived spent fuel rods was to be removed within a reasonable time by the Federal Government, therefore, the subject of nuclear waste was labeled generic and could not be discussed in hearings for individual plants. However, instead of their being removed, more spent fuel rods than had been planned to be contained on site, have been placed closer together in the cooling pool than was originally thought to be prudent. Thirty years later, there is still no time set for removal of these wastes from our county.

Should setting a date for beginning to remove wastes be a condition for approval of adding twenty years of producing radioactive waste? (SLD-P-2) (SLD-AC-2)

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**Response:** *The comment is noted. Onsite storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of long-term storage of spent fuel onsite have been evaluated by the NRC and, as set forth in the Waste Confidence Rule (10 CFR 51.23), the NRC generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be safely stored onsite for at least 30 years beyond the licensed operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be moved to a permanent repository. The GEIS, NUREG-1437, is based upon the assumption that storage of the spent fuel onsite is not permanent. This supplement to the GEIS for St. Lucie Units 1 and 2 is also based on the same assumption.*

*Alternative methods exist, other than storage in the spent fuel pools, for safe interim storage of high-level waste onsite. Licensees can and have taken advantage of these alternative dry storage options. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** The nuclear industry may point to the congressional designation of Yucca Mountain as the repository site for high level waste as a victory. The costs for this facility will be staggering. Here's a quotation from Congresswoman Shelley Berkley, speaking before the House of Representatives, and I quote: "The projected cost of this boondoggle is anywhere from 56 billion dollars to 309 billion dollars. The Nuclear Waste Fund has 11 billion dollars. How are we going to pay for this, raise taxes, dip into the Social Security Trust Fund? And once Yucca Mountain is full, then what do we do? After spending hundreds of billions of dollars, we will still be exactly where we are today." (SLD-R-4)

**Response:** *The comment is noted. The SEIS evaluates the environmental impact of license renewal, not the proposed high-level waste repository at Yucca Mountain. The licensing process for Yucca Mountain will have its own environmental review. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** As I understand it, the spent fuel from day one is still there, in the water or sump, and that's bothered me even before September the 11<sup>th</sup>. (SLD-S-3)

**Response:** *The comment is noted. The commenter is correct in that the spent nuclear fuel from plant operation is stored onsite in specially designed spent fuel pools. Onsite storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of long-term storage of spent fuel onsite has been evaluated by the NRC and, as set forth in the Waste Confidence Rule, the NRC generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be safely stored onsite for at least 30 years beyond the licensed operating life, which may include the term of a renewed license. At or before the end of that*



*period, the fuel would be moved to a permanent repository. The GEIS, NUREG-1437, is based on the assumption that storage of spent fuel onsite is not permanent. This SEIS is also prepared based on that same assumption. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to SEIS text.*

**Comment:** And I do know that Yucca Mountain is a national political problem. But what even worries me today and I said it earlier, I've lost a lot of confidence in Federal agencies monitoring and policing. And the trend in Washington today is you do less of it, considerably less.  
(SLD-S-4)

**Response:** *The comment is noted. The SEIS evaluates the environmental impact of license renewal, not the proposed high-level waste repository at Yucca Mountain. The licensing process for Yucca Mountain will have its own environmental review. The review will address long-term monitoring activities at the facility. The NRC provides regulatory oversight of the nuclear power industry. The oversight includes inspection and when necessary, enforcement actions to assure compliance with the Commission's regulations. The staff adjusts inspection effort periodically and believes that the current level of inspection is adequate to assure public health and safety and protection of the environment. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** My main opposition then and now to a nuclear plant is to the extremely toxic waste being produced by the plant without safe storage for it, which was promised to the residents at the time of siting. (SLD-AD-2)

**Response:** *The comment is noted. Long-term storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of long-term storage of spent fuel were set forth in the Waste Confidence Rule. In the Waste Confidence Rule, the Commission determined that spent fuel can be safely stored onsite for at least 30 years beyond the licensed operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be moved to a permanent repository. The GEIS, NUREG-1437, is based on the assumption that storage of spent fuel onsite is not permanent. This SEIS is also prepared based on that same assumption. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

#### **A.4.14 Comments Concerning Alternatives to the Proposed Action**

**Comment:** It is my understanding that replacing the two reactors with the equivalent electric producers such as oil, or gas, or coal, could have greater pollution and ecological impacts.  
(SLD-A-7)

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**Comment:** And certainly I don't think any of us want to turn to fossil fuel. I don't believe we do, because you know the pollution we talked about that we do not want, that's what we will find. (SLD-Q-9)

**Comment:** But what about these coal fire plants? Well, I've got a real problem there. And yet coal, from all indications, is the cause of much of the pollution around the United States in power plants and factories. Gas is a little bit – petroleum is a little bit better. Not as much as it claim, and gas probably is still a little bit better, but they're all fuels that pollute badly. (SLD-S-1)

**Response:** *The comments are noted. Impacts from reasonable alternatives, such as coal or natural gas, for the St. Lucie license renewal are evaluated in Section 8.0 of this SEIS. The staff concludes in Section 9.2 of the SEIS that all of the alternatives would result in greater environmental impacts than renewal of the OLS. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** There is a great difficulty within Florida to find a replacement source of energy, something that is cleaner or better in some sense than the existing nuclear power plant. (SLD-M-3)

**Comment:** There are difficulties with wind and solar. It's a very diffuse energy, as opposed to fuels. And as such, I tend to look at that as something that will become much more of use in other areas of the nation. It's not only the resource of wind and solar, but also the economics of the situation. (SLD-M-4)

**Comment:** Florida enjoys relatively low costs for kilowatt hour, whereas others, which do have wind and solar, may have very high costs. And that is an offsetting factor in installing wind turbines or solar module farms. (SLD-M-5)

**Comment:** Fossil fuel plants produce more air/water pollution than nuclear plants, but few are as concerned about non-nuclear pollution. Wind and solar-electric plants would require extensive land areas due to the low energy density of the sources. Neither appears to be a viable replacement for large base-load plants. Hydropower has limited resource in Florida and environmental blocking objections, while ocean wave and tide energy appears to be uneconomic and environmentally problematic within the next twenty years. Oil is too precious a resource to burn in fixed locations for heat. Transportation and chemical use must take priority. Biomass combustion produces pollution and CO<sub>2</sub>, which many believe contributes to global warming (climate change). Municipal stream waste (MSW) contains heavy metals such as lead, mercury, and zinc that should no be incinerated. (SLD-AG-6)

**Comment:** As described in the DGSEIS, the environmental impacts of continuing or renewing the license for St. Lucie Units 1 and 2 has fewer environmental impacts than the alternatives (Chapter 8 and Table 9-1). The alternatives described in the document include using fossil fuel power generation process, constructing a new nuclear facility, using alternative fuel generation methods, purchasing power from other sources, or implementing the No-Action Alternative. (SLD-AI-1)

**Response:** *The comments are noted. Impacts from reasonable alternatives for the St. Lucie license renewal are evaluated in Section 8.0. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** If Florida Power and Light is given this mandate to continue to operate the older facility for thirty-four years, forty-one years for the newer facility, what inducement, what incentive, impetus is there for them to ever seriously consider any other alternatives to nuclear energy, safer alternatives, renewable sources of energy? (SLD-N-1)

**Comment:** And also, a real – make a real effort at conservation education and, instead of wasting energy like we do. (SLD-N-3)

**Comment:** I notice you've got a little bit of conservation as a last item on your handout. Just a little bit, some after-thought. I'd really like to see you move it up to the first item. (SLD-S-5)

**Comment:** EPA appreciates the utility-sponsored conservation methods outlined in Section 8.2.5.11 to help user implement measures to reduce power consumption. (SLD-AI-2)

**Response:** *The comments are noted. Impacts from reasonable alternatives, such as conservation, for St. Lucie Units 1 and 2 are evaluated in Section 8.0 of this SEIS. NRC's responsibility is to ensure the safe operation of nuclear power plants and not to formulate energy policy or encourage or discourage the development of specific alternative power generation. The staff's evaluation of alternatives is limited to an assessment of their environmental impact. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** So I guess I would have to be some of these – maybe the sole person here who is opposed to an extension of the operating license. I think it's premature that we should focus on looking at alternatives, and I know that's not the, consistent with the national energy policy. (SLD-N-2)

**Response:** *The comment is noted. The staff must evaluate the environmental impact of alternatives as part of the NEPA process. Impacts from reasonable alternatives, such as conservation, for St. Lucie Units 1 and 2 are evaluated in Section 8.0 of this SEIS. NRC's*

*responsibility is to ensure the safe operation of nuclear power plants and not to formulate energy policy or to encourage or discourage the development of alternative power generation. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

#### **A.4.15 Comments Concerning Issues Outside the Scope of the Environmental Review for License Renewal**

**Comment:** During the past thirty years, has new equipment for improving nuclear plant safety been developed, that might not have seemed cost effective to install at St. Lucie 1 or 2 for forty years operating period, but that should be installed for an additional twenty year operation? (SLD-P-8) (SLD-AC-8)

**Comment:** Please do not extend the life of the St. Lucie nuclear plant. Residents of the area were told at site hearings that they were built to last 40 years. Why and how has that changed? The continuation of plants past their planned life-span increases the danger of accidents. (SLD-AD-1)

**Response:** *The comments are noted. The 40-year term was originally selected based on economic and antitrust considerations, not technical limitations. Once the license term was established, the design of several system and structural components were engineered on the basis of an expected 40-year service life. When the first reactors were constructed, major components were expected to last at least 40 years. Operating experience has demonstrated that expectation was unrealistic for some major plant components such as steam generators at a pressurized water reactor. However, research conducted since 1982 and plant operating experience have demonstrated that there are no technical limitations to the plant life since major components and structures can be replaced or reconditioned. Thus, the plant life is determined primarily by economic factors. The safety requirements for the initial 40-year license are contained in 10 CFR Part 50. Safety matters related to aging are outside the scope of this environmental review. An NRC safety review for the license renewal period is conducted separately. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** Citizens were told that an operating license would be limited to thirty years, because the metal end of their containers was expected to become brittle by forty years use and to crack. What new studies prove otherwise? (SLD-P-3) (SLD-AC-3)

**Response:** *The comment is noted. The staff is unable to respond to the specific issue raised by the commenter since the location and function of the "containers" was not specified. However, the staff can respond by stating the 40-year term was originally selected based on economic and antitrust considerations, not technical limitations. Once the license term was*

*established, the design of several system and structural components were engineered on the basis of an expected 40-year service life. When the first reactors were constructed, major components were expected to last at least 40 years. Operating experience has demonstrated that expectation was unrealistic for some major plant components such as steam generators at a pressurized water reactor. However, research conducted since 1982 and plant operating experience have demonstrated that there are no technical limitations to the plant life since major components and structures can be replaced or reconditioned. Thus, the plant life is determined primarily by economic factors. The safety requirements for the initial 40-year license are contained in 10 CFR Part 50. Safety matters related to aging are outside the scope of this environmental review. An NRC safety review for the license renewal period is conducted separately. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Florida energy demands are growing at about two percent annually. (SLD-A-3)

**Comment:** The Economic Development Council is very supportive of it [the plant], from the standpoint that we need the power and we need electricity. Our charge is to help bring industry to the community. We have to have a power source when they get here, that's affordable in our dealings with companies coming from throughout the country and looking at our community, our power rates are very favorably priced, relative to where they're coming from. (SLD-G-1)

**Comment:** Another fact to consider is our [FPL's] ability to help meet Florida's energy needs. As we've stated, Florida is growing two percent a year and the St. Lucie Power Plant can help sustain the economic growth and maintain our quality of life. (SLD-I-5) (SLD-U-5)

**Comment:** The renewal of the St. Lucie licenses is important in meeting the energy needs of South Florida. As been stated already in this meeting, our growth rate is about two percent a year and the electricity being consumed per customer is also increasing. (SLD-J-4) (SLD-V-4)

**Comment:** Demands for energy in our communities on the Treasure Coast are growing annually and we need power from this plant to meet the growing needs for low cost electricity. Florida Power and Light has a good track record of not only providing the power we need, but operating this plant safely and protecting the environment. (SLD-K-2)

**Response:** *The comments are noted. The need for power is specifically directed to be outside the scope of license renewal as required by 10 CFR Part 51.95(c)(2). The comments are in support of license renewal at St. Lucie Units 1 and 2. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

## Appendix A

**Comment:** In March of 2001, cracks started being seen around the control rod drive mechanisms at the top of some reactor pressure vessels. The NRC knew it had problems with cracks, with boric acid oozing out and with corrosion. Instead of calling for immediate safety inspections, it delayed the inspections order until December 31st. One troublesome reactor, Davis Besse, near Toledo, Ohio, wanted more delays. So rather than impede plant revenues, the NRC delayed the safety inspections again. When the inspection was finally done in March of this past year, a hole about as big as a football, was discovered in the reactor lid. Only a thin piece of stainless steel cladding kept the reactor contents from blowing out the corrosion hole. That whole affair was mismanaged by the NRC, who truly endangered the public by putting utility revenues before safety. (SLD-R-3)

**Response:** *The comment is noted. The corrosion event at the Davis-Besse nuclear plant is an operational issue and outside the scope of license renewal. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to SEIS text.*

**Comment:** But none of these things would matter if the plant did not operate safely. And this is something we've come to learn through our office and through dealing with the people at the plant, that they have our safety and concern at heart. Many of them are our neighbors. They live in our community. They are just as concerned for their families as they are for anyone else's. (SLD-F-2)

**Comment:** It is clearly evident that the employees of the St. Lucie Plant are dedicated to making sure the plant is safe, not only for themselves, but for their families, friends and neighbors. This agency, the St. Lucie County Department of Public Safety, supports the license renewal of the St. Lucie Plant. (SLD-F-5)

**Comment:** The St. Lucie employees make our community a better place to live because of their safety record, and that's what's so vitally important to me, the safety record. Because all those well trained individuals that meticulously – they meet the performance standards set at the highest of quality levels daily. (SLD-L-3)

**Comment:** They [FPL employees] are dedicated to making certain that the plant is safe, not only for themselves, but for their families, friends and us, because we are their neighbors. (SLD-L-4)

**Comment:** St. Lucie's safety inspection record has been rated as one of the most reliable nuclear power plants, not only of the U.S., but in the world. I strongly believe that the St. Lucie Power Plant has a proven safety record and one with which the employees can continue to build on in the future. (SLD-L-5)

**Comment:** With regard to safety and reliability, long before coming to Florida I was aware of the excellent reputation in quality that Florida Power and Light enjoyed and of the high standards they employed in their facilities. (SLD-W-3)

**Comment:** There is no question in my mind that safety is the top priority at the St. Lucie nuclear Plant and their safety record bears this out. (SLD-W-4)

**Response:** *The comments are noted. Operational safety matters are outside the scope of the NRC's environmental review. An NRC safety review for the license renewal is conducted pursuant to 10 CFR Part 54 and will be documented in a safety evaluation report separate from this SEIS. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** This is the reason [NRC staff ought] to carefully, double carefully consider extending operating licenses of St. Lucie 1 and 2 (and all other plants) as we shall undoubtedly continue to find problems of rust, embrittlement, etc. in old plants. Wonder what the industry thinks stories and occurrences/events of this sort do to "public confidence?" (SLD-AA-1)

**Response:** *The comment is noted. The commenter included a copy of a newspaper article referring to the reactor head corrosion event at the Davis-Besse Nuclear Power Plant. The NRC staff is concerned with public confidence. The staff believes that public confidence can be improved by continuing to ensure safe operation of nuclear power facilities through fair, comprehensive, and timely regulatory oversight of the industry. The comment refers to operational safety issues that are outside the scope of the environmental assessment for license renewal. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** First hearings predicted no population growth on Hutchinson Island near the plant. Population on Hutchinson Island was zero at the time. Now that many high rises, holding many people, exist south of the plant, what different plan for population evacuation in case of severe accident should be established, or additional traffic lanes or people transporters for evacuation indicated by current and expected population? (SLD-P-4) (SLD-AC-4)

**Response:** *The comment is noted. The staff considered the need for a review of emergency planning issues in the context of license renewal during its rulemaking proceedings on 10 CFR Part 54, which included public notice and comment. As discussed in the Statement of Considerations for the rulemaking (56 FR 64966), the programs for emergency preparedness at nuclear plants apply to all nuclear power plant licensees and require the specified levels of protection from each licensee regardless of plant design, construction, or license date. The requirements of 10 CFR 50.47 and Appendix E to 10 CFR Part 50 are independent of the renewal of the operating license, and will continue to apply during the license renewal term.*

## Appendix A

*Through its standards and required exercises, the Commission ensures that existing plans are adequate throughout the life of any plant, even in the face of changing demographics and other site-related factors. Therefore, the Commission has determined that there is no need for a review of emergency planning issues in the context of license renewal. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** But most important is their pro-active involvement in offsite and on site emergency planning. (SLD-F-4)

**Response:** *The comment is noted. Offsite and onsite emergency planning and operational safety matters are outside the scope of the NRC's environmental review. An NRC safety review for license renewal is conducted pursuant to 10 CFR Part 54 and will be documented in a Safety Evaluation Report separate from this SEIS. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Our office [St. Lucie County Public Safety Office] also receives timely briefings and correspondence regarding in-place procedures and checks by an independent quality assurance organization, and that this ensures timely preventative maintenance is done. These reports show that St. Lucie Plant is committed to the safety of residents surrounding the plant. (SLD-F-3)

**Response:** *The comment is noted. Emergency preparedness and operational safety matters are outside the scope of the NRC's environmental review. An NRC safety review for license renewal is conducted pursuant to 10 CFR Part 54 and will be documented in a Safety Evaluation Report separate from this SEIS. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** On April 3, 2002, I presented oral comments, for the record, concerning scoping for an EIS supplement on extending the license of the St. Lucie nuclear plant. The public safety issues I presented were omitted by the NRC in publishing Supplement 11, Draft Report, NUREG-1437. I have simplified the 8 issues that were embedded in the oral comments. These issues, concerning public health and safety, need to be explained in substantial detail in the Final Report of Supplement 11, NUREG 1437 to be in compliance with the National Environmental Policy Act. (SLD-AF-9)

**Response:** *The comment is noted. The commenter states that the issues he raised during the NEPA scoping process were not addressed in the Draft SEIS. The Staff determined in the Scoping Summary Report (ML021160348) dated July 8, 2002, which predated the October 2002*



*draft SEIS, that the issues raised by the commenter are not related to the environmental consequences of the Federal action (as prescribed in 10 CFR Part 51) to renew a license and will not be considered in the environmental review. Hence the comments were not addressed in the Draft SEIS.*

*As characterized by the commenter, the issues raised are safety issues. NRC's safety responsibilities fall under the Atomic Energy Act, either associated with the current operation of the facility or with the continued operation should the license be renewed. The NRC safety review for license renewal is conducted pursuant to 10 CFR Part 54 and is documented in a safety evaluation report, a separate document from this SEIS, in an inspection report, and in the review by the NRC's Advisory Committee for Reactor Safeguards. One of the principal responsibilities of the NRC is the protection of the health and safety of the public, and any safety issue that has a bearing on this responsibility is evaluated. During the course of the environmental review for license renewal, safety issues brought to the staff's attention are referred to the appropriate safety venue for consideration.*

*This comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Regarding the possibility of attack on our plants from the air, [I am] enclosing a clipping regarding a rumor that a small plane had circled low over the plant site without being intercepted. (SLD-AC-11)

**Response:** *The comment is noted. The licensee confirmed that a small private aircraft was in the vicinity of the St. Lucie nuclear plant on the morning of September 11, 2001. Both the licensee and the FBI have been unable to identify the owner or operator. This is still being investigated. Each nuclear plant must have approved emergency and safeguards contingency plans, as required by 10 CFR Part 50, that are revised periodically. Emergency and safeguards planning, which includes responses to threats of terrorism and sabotage, are part of the current operating license and are outside the scope of the environmental analysis for license renewal. Any required changes to emergency and safeguards contingency plans related to terrorism and sabotage will be incorporated and reviewed under the operating license. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Most recently there's concern about terrorist threats and how that affects nuclear facilities. And so, you know, I was, like everyone else, concerned about that. (SLD-N-4)

## Appendix A

**Comment:** My concern is one of safety. It's not so much of an internal accident that may occur, but something that was thrust upon us on 9/11/2001, by a real threat of terrorism. (SLD-O-1)

**Comment:** Does the predicted long term terrorism threat that the Federal Government is planning for, and with nuclear power plants labeled one of the most likely targets and with St. Lucie Plants vulnerable from air, land and water, should St. Lucie 1 and 2 be closed as soon as possible, instead of given an extended life? (SLD-AC-9)(SLD-P-9)

**Comment:** When St. Lucie I and 2 were built, no one was thinking of the need for protection against a deliberate airplane attack, and it doesn't seem we are sure now that the plants are redundantly safe from such. However, at this time, thinking the even more unthinkable, my concern is not for a Twin Towers type attack but for the dropping of a bomb onto the plants or the spent rod fuel assembly pools. Such an event would surely produce a catastrophic reaction. And while immediately after September 11, 2001, we were told that our plant would be guarded from the air by military planes, that plan was soon abandoned, and as the incident referred to above shows, the plants are unprotected from air, land, or sea missiles. (SLD-AC-10)

**Comment:** The EIS needs to state the calculated time sequences leading to a zirconium fire as a result of sabotage or terrorist attacks. (SLD-AF-3)

**Comment:** Video surveillance systems using software intruder-path detection and alarming should be employed to supplement the security forces alertness. These cameras may be especially useful in detection of boats and swimmers approaching the Lagoon side of the plant. Electric-field detection fencing is a first level of defense. Ultrasonic sensors in the barge channels are necessary to detect underwater swimmers. Consultations with the Sandai Intrusion Detection Lab and Special Forces teams would help determine means of attack and defense. The plant security force members periodically should consider how they would attack the plant with their level of knowledge, and then help design the means to prevent such attacks. Do not downplay obscure or low-probability attacks. (SLD-AG-5)

**Response:** *The comments are noted. In a recent decision in another license renewal proceeding, the Commission discussed the terrorism and sabotage issues raised in the comments. See Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-26, 56 NRC 358 (2002). In that decision, the Commission found that NEPA imposes no legal duty on the NRC to consider intentional malevolent acts on a case-by-case basis in conjunction with commercial power reactor license renewal applications. The Commission concluded that the "environmental" effect caused by third-party miscreants is simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.*

*The Commission has also indicated that terrorism differs from matters ordinarily considered in an EIS. An EIS may discuss, for example, such matters as likely effects on local water, air quality, vegetation, wildlife, culture, and socioeconomic concerns. These effects are reasonably certain; an EIS can quantify them to a fair degree of precision. Terrorism, by contrast, comes in innumerable forms and at unexpected times and places. It is decidedly not predictable, and it is not a natural or inevitable by-product of the granting of an application. For these reasons, the Commission has stated that an EIS is not an appropriate format in which to address the challenges of terrorism.*

*In its recent license renewal decision, the Commission also noted that, particularly in the case of a license renewal application, where reactor operation will continue for many years regardless of the Commission's ultimate decision, it is sensible not to devote resources to the likely impact of terrorism during the license renewal period, but instead to concentrate on how to prevent a terrorist attack in the near term at the already licensed facilities. Finally, the Commission determined that there appears to be little practical benefit in conducting a license renewal terrorism review.*

*Nevertheless, the Commission did indicate that its decision not to use NEPA as a vehicle for a terrorism review does not mean that it is ignoring the issue. Rather, the Commission is closely examining the current security and protective framework and already has ordered interim improvements at licensed nuclear facilities, including reactors. The Commission expects further improvements as the internal comprehensive review moves forward. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

**Comment:** The EIS needs to state the results of the research program concerning St. Lucie, safety issues, and terrorism that was mentioned by NRC official, Jim Medoff, at the ACRS meeting in Florida City, FL on March 13, 2002. (SLD-AF-8)

**Response:** *The comment is noted. The NRC staff reviewed the transcript of the March 13, 2002, ACRS meeting in Florida City and found that the meeting focused on the license renewal application for the Turkey Point nuclear plant. There was no mention by Mr. Medoff or anyone of a research program concerning the St. Lucie nuclear plant, no discussion of St. Lucie safety issues, no discussion concerning terrorism concerns at either facility. The commenter was not present at the March 13, 2002, meeting. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** The EIS needs to state the fatalities, the injuries, the economic loss, and the scope of evacuation as consequences resulting from a worst case zirconium fire in a spent fuel pool at the St. Lucie nuclear plant. (SLD-AF-1)

## Appendix A

**Comment:** The EIS needs to state the probability of a zirconium fire occurring in a spent fuel pool at the St. Lucie nuclear plant. The probability calculation needs to combine accidental fires, sabotage fires, and terrorist caused fires. (SLD-AF-2)

**Comment:** The EIS needs to state the consequences, the recalculated probability, and the recalculated time sequences of a zirconium fire at St. Lucie to assist emergency preparedness administrators in creating a new evacuation plan to assist members of the public in creating their own personal emergency plans. (SLD-AF-4)

**Comment:** The EIS needs to state what mitigation, if any, is available once a zirconium fire at the St. Lucie nuclear plant has started. (SLD-AF-5)

**Comment:** The EIS needs to state the results and conclusions of all the research in the NRC's possession related to extinguishing a zirconium fire in a spent fuel pool of a nuclear plant. (SLD-AF-6)

**Comment:** The EIS needs to state the probability and consequences of a zirconium fire in a spent fuel pool at St. Lucie, igniting a zirconium fire in the adjacent spent fuel pool. (SLD-AF-7)

**Comment:** Since much has been made by antinuclear activists of the potential for zirconium spent-fuel fires and release dispersion, a detailed study of possibilities of those fires (a fault tree analysis) should be made in a way as to fully inform the public as to how such risks are computed. Loss of pool coolant and terrorist actions should be considered. (SLD-AG-4)

**Response:** *The comments are noted. Operational safety matters are outside the scope of this review. An NRC safety review for the license renewal period is conducted separately. With regard to zirconium fires in the spent fuel pool, each nuclear plant must have approved emergency and safeguards contingency plans, as required by 10 CFR Part 50, that are revised periodically. Emergency and safeguards planning are part of the current operating license and are outside the scope of the environmental analysis for license renewal. Any required changes to emergency and safeguards contingency plans that may be generated due to threats such as terrorism and sabotage will be incorporated and reviewed under the operating license.*

*Long-term storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of long-term storage of spent fuel were set forth in the Waste Confidence Rule. Although outside the scope of this SEIS, the staff would like to provide the following brief response. NUREG-1738, Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants provides an analysis of the consequences of the spent fuel pool accident risk. Earlier analyses in NUREG/CR-4982, Severe Accidents in Spent Fuel Pools in Support of Generic Issue 82 and NUREG/CR-6451, A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants included a limited analysis of the offsite*

*consequences of a severe spent fuel pool accident occurring up to 90 days after the last discharge of spent fuel into the spent fuel pool. These analyses showed that the likelihood of an accident that drains the spent fuel pool is very low, although the consequences of such accidents could be comparable to those for a severe reactor accident. The staff performed a further analysis of the offsite radiological consequences of beyond-design-basis spent fuel pool accidents using fission product inventories at 30 and 90 days and 2, 5, and 10 years. The accident progression scenarios that lead to large radiological releases following the drainage of a spent fuel pool require many nonmechanistic assumptions. This is because the geometry of the fuel assemblies and the air-cooling flow paths cannot be known following a major dynamic event that might drain the water from the spent fuel pool. In addition, no credit is taken for preventative or mitigative actions and large uncertainties exist in the source term and consequence calculations. Because of these uncertainties, the staff developed bounding risk curves in NUREG-1738 that capture both frequency and consequences of a beyond-design-basis spent fuel pool drainage event (the risk curves are provided in Figures I-1 and I-2 of NUREG-1738). The results of the study indicate that the risk is low because of the very low likelihood of a zirconium fire even though the consequences from a zirconium fire could be serious. The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

#### **A.4.16 Editorial Comments**

**Comment:** Page 4-44, line 01: “form” should be “from.” (SLD-AE-51)

**Comment:** Page 5-05, line 05: Change “safety analysis” to “safety assessment.” (SLD-AE-52)

**Comment:** Page 5-13, line 01,02: Change the word “account” to “compensate.” Insert the word “apparent” before “non-conservatism.” Delete the phrase, “This relatively small non-conservatism notwithstanding,”. Begin last sentence with “The Staff considers...” (SLD-AE-55)

**Comment:** Page 5-26, 3rd reference from bottom: The name is spelled “Gleaves.” (SLD-AE-60)

**Response:** *The comments are noted. The comments resulted in modifications to the SEIS text.*

**Comment:** Page 5-07, Table 5-3: Footnote (b). Start the sentence, “The Unit 2 LOCA value, originally ..., was.” The Unit 2 LOCA value needed correction and in turn effected a misstatement of the “Others” value. (SLD-AE-53)

**Response:** *The comment is noted and the proposed changes made to the footnote. The comment resulted in modification of the SEIS text.*

## Appendix A

**Comment:** Page 8-05, line 35: NUREG-0586 (NRC 1988) is cited in the text here, but not included in the reference list in Section 8.4. (SLD-AE-63)

**Response:** *The comment is noted and the reference added to Section 8.4. The comment resulted in modification of the SEIS text.*

**Comment:** Page 2-35, line 22 and 41: The “a” designation on the reference citation, U.S. Census Bureau 2000a, should be dropped as it is not consistent with that listed in the reference section. (SLD-AE-14)

**Comment:** Page 2-42, line 06: Reference citation USDA 2001a is inconsistent with that listed in the reference list. Delete the “a” designation. (SLD-AE-26)

**Comment:** Page 4-13, line 13: Reference citation (ASIC 1973) is not consistent with that listed in the reference list and should be corrected to (AEC 1973). (SLD-AE-39)

**Comment:** Page 4-40, line 06: Reference citation FPL 2001b is not the correct correspondence discussed in this sentence. (SLD-AE-50)

**Comment:** Page 5-21, line 23 and 37: Reference citation NRC 1997a should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list. (SLD-AE-56)

**Comment:** Page 5-23, line 03: Reference citation NRC 1997b should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list. (SLD-AE-57)

**Comment:** Page 5-23, line 11: Reference citation NRC 1997a should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list. (SLD-AE-58)

**Comment:** Page 5-24, line 37: Reference citation NRC 1997b should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list. (SLD-AE-59)

**Comment:** Page 8-10, line 18: The “a” used on the reference citation “FPL 2001a” should be deleted, as this designation is not used in the reference list. (SLD-AE-65)

**Response:** *The comments are noted and the citations changed to the correct reference. The comments resulted in modifications of the SEIS text.*

**Comment:** Page 5-09, line 11: Reference NRC 1988 is not provided in the reference list. (SLD-AE-54)

**Response:** *The comment is noted and the reference added. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-40, line 06: “Informal consultation with the FWS was initiated by FPL in April 2001...” is not correct as only Federal agencies can initiate consultation. This sentence should be revised to read, “NRC initiated informal consultation in February 2002 with a request for information concerning which species are potentially....” (SLD-AE-49)

**Response:** *The comment is noted and the suggested changes made. The comment resulted in modification of the SEIS text.*

**Comment:** Page 8-04, line 28: This sentence states that the volume of low-level radioactive waste could vary greatly depending on the length of time it {the reactor} operated. However, the NRC states in the GEIS (Section 7.3.2) that decommissioning waste volumes would be essentially the same for a plant operated for 40 years as for a plant operated 60 years. Resolve the apparent discrepancy by deleting the phrase “the length of time it operated.” (SLD-AE-62)

**Response:** *The comment is noted and the phrase was deleted. The comment resulted in modification of the SEIS text.*

**Comment:** Page 8-07, line 33: The statement is made that the land west of the intake canal and south of the transmission lines could not accommodate a coal or new nuclear unit, but “could potentially accommodate a completed natural gas combined cycle plant to replace St. Lucie Units 1 and 2.” Several “obstacles” are mentioned, but one significant “obstacle” is omitted: the lack of an existing gas pipeline that could provide fuel to the site. This should be added to the other “obstacles” already listed. (SLD-AE-64)

**Response:** *The comment is noted. The text of the SEIS was changed to make reference to the need for a gas pipeline. The comment resulted in modification of the SEIS text.*

**Comment:** Page 8-11, line 03: Sentence beginning with “Annual coal consumption...” should be deleted as this information is given in the previous paragraph. (SLD-AE-66)

**Response:** *The comment is noted and the sentence deleted. The comment resulted in modification of the SEIS text.*

## Appendix A

**Comment:** Page 2-14, line 32: SEIS states, “The last 2.4 km (1.5 mi) of the right-of-way is shared with three other 230 kV lines...” should be corrected. There are four other 230 kV lines entering the Midway Substation. (SLD-AE-6)

**Comment:** Page 2-14, line 33: SEIS states “...total right-of-way width is approximately 1080 feet.” Although there is a short section of North-South leg that is approximately 1080 ft., the majority of the right-of-way is approximately 800 feet. (SLD-AE-7)

**Comment:** Page 2-15, line 06: Correct spelling of “right-or-way” to “right-of-way.” (SLD-AE-8)

**Comment:** Page 2-17, line 02: It is not clear that the site no longer has a package plant. Reword as follows: Period after “wastewater.” Second sentence to read, “The treated wastewater was previously discharged to the discharge canal. Now the site sanitary wastewater is discharged to St. Lucie County’s South Hutchinson Island Water Reclamation Facility for treatment.” (SLD-AE-9)

**Comment:** Page 2-22, line 31-32: Sentence should read, “The whales are listed as endangered by the Federal government and the State of Florida.” (SLD-AE-11)

**Comment:** Page 2-28, line 02: “Habiats” should be corrected to “Habitats.” (SLD-AE-12)

**Comment:** Page 2-36, line 24: The value given for the peak demand per day, 5.8 M.D. is not consistent with that stated in the ER (5.4 M.D.). (SLD-AE-16)

**Comment:** Page 2-37, line 9: Change “Solerno” to Salerno.” (SLD-AE-17)

**Comment:** Page 2-42, line 25-29: The 1999 tax assessment for St. Lucie 1 and 2 (\$22,807,970) is 10.3% of the total property taxes (\$221,893,569) and the 2000 tax assessment for St. Lucie 1 and 2 (\$18,888,240) is 8.5% of total county property taxes (\$222,310,596). These results will change the average quoted on page 4-26 line 13. Correct table entries accordingly. (SLD-AE-29)

**Comment:** Page 2-42, Note (c): Should read “State of Florida data on migrant farm workers were not available.” (SLD-AE-30)

**Comment:** Page 2-43, line 17: “...Brighton Seminole, located about 76 km (47 mi) to the east of the St. Lucie plant...” should be corrected by changing the word “east” to “southwest.” (SLD-AE-31)



**Comment:** Page 2-47, line 9-10: Change “before construction” to “before operation.” (SLD-AE-32)

**Comment:** Page 4-02, line 09: “of” should be “to.” (SLD-AE-33)

**Comment:** Page 4-05, line 37-38: “...and the ecological risk assessment study for the cooling canal system (Ecological Associates 2001).” The referenced study was a survey report not a risk assessment for the cooling canal system. Also cited on page 4-6, line 24. (SLD-AE-36)

**Comment:** Page 4-12, line 39: “...impacts related to entrainment and no...” should be corrected to read “...impacts related to impingement...” (SLD-AE-38)

**Comment:** Page 4-17, line 27: “licence” should be “license.” (SLD-AE-41)

**Comment:** Page 4-36, line 18: Change “are monitored” to “are normally monitored.” This reflects those times when monitoring is not possible or required by license condition. (SLD-AE-47)

**Comment:** Page 8-11, line 17: “Spent selective catalytic reduction (SCR) catalyst” should be deleted from the list of wastes identified in this sentence since, as noted on page 8-17, line 21, spent SCR catalyst would not be disposed of onsite. (SLD-AE-67)

**Comment:** Page 8-23, line 25: NRC cites FPL’s ER as the source in listing design assumptions for the gas-fired alternative, including use of low-sulfur number 2 fuel oil as backup fuel. Delete this design assumption from the list, since FPL did not assume use of fuel oil as a backup fuel in its ER. (SLD-AE-70)

**Response:** *The comments are noted and the proposed changes made. The comments resulted in modification of the SEIS text.*

**Comment:** Page 8-13, line 07: For Coal-Fired New Generation – Environmental Justice was quoted in Table 8-2 as “Small” and “Small to Moderate” in Table 9-1. (SLD-AE-68)

**Response:** *The comment is noted and the table modified. The comment resulted in modification of the SEIS text.*

**Comment:** Page 8-22, line 17, 18: For Natural Gas-Fired New Generation – Environmental Justice was quoted in Table 8-2 as “Small” and “Small to Moderate” in Table 9-1. (SLD-AE-69)

**Response:** *The comment is noted and the table modified. The comment resulted in modification of the SEIS text.*

## Appendix A

**Comment:** Page 6-06, line 37: Add the following text after “nuclear waste: “Both the Senate and Congress subsequently voted to override a veto of the President’s selection of the Yucca Mountain site by the Governor of the State of Nevada.” (SLD-AE-61)

**Response:** *The comment is noted. The proposed statement does not provide a meaningful contribution to the evaluation of the environmental impact of license renewal at the St. Lucie site. The comment provides no new information; therefore, the comment was not evaluated further. There was no change to the SEIS text.*

**Comment:** Page 2-42, line 25-29: Property tax amounts paid to St. Lucie County for St. Lucie Units 1 and 2 for years 1996, 1998, and 1999 vary slightly from the dollar amounts presented in the ER. The amount in the ER for 2000 was an estimate and was reflective of the total FPL property tax for St. Lucie County. To clarify the record, the ER value for the 2000 taxes to be paid for St. Lucie 1 and 2 only would have been correctly stated as \$18.8 million. Also, in line 29, “\$18.888,240” should be corrected to “\$18,888,240.” (SLD-AE-28)

**Response:** *The comment is noted. The error in the 2000 entry was corrected. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-02, line 26 and 32: Altered Salinity Gradients is applicable to plants discharging to estuarine systems. Given that St. Lucie discharges to an ocean environment, this issue is not applicable to St. Lucie. Eutrophication is an issue applicable to small stratified water bodies. Given that St. Lucie discharges to a large oceanic water body, this issue is not applicable to St. Lucie. These issues should be removed from this table and added to Appendix F. (SLD-AE-34)

**Response:** *The comment is noted. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-03, line 15: Delete this line. St. Lucie 1 & 2 use once-through cooling and the GEIS reference discussion relative to cooling system noise impacts is specific to cooling towers. It is incorrect to group the noise issue with the cooling system impacts. The GEIS addresses plant noise beyond that associated with the cooling system. (SLD-AE-35)

**Response:** *The comment is noted. The comment incorrectly states that noise was addressed in 10 CFR 51, Subpart A, Appendix B, Table B-1 only as a function of cooling towers. This is not the case, as stated numerous places in the GEIS. The comment did not result in changes to the text.*

**Comment:** Page 4-09, line 13-21: Delete these lines. See the comment above for page 4-03 line 15. (SLD-AE-37)

**Response:** *The comment is noted. Table B-1 (10 CFR 51, Subpart A, Appendix B) identifies noise from general plant operation, rather than noise just from operation of cooling towers, as the issue to be evaluated in supplements to the GEIS. There was no change to the text.*

**Comment:** Page 4-37, line 13: This discussion is not up to date. It does not consider the letter reprinted at page E-31, and does not consider FPL's letter to the Staff clarifying whether a consultation is required. Add the following words following the sentence ending on line 13:" By letter dated August 23, 2002, the NRC Staff requested reinitiation of consultation with NMFS regarding the incidental capture of green and loggerhead turtles at St. Lucie Units 1 and 2. By letter dated September 20, 2002, FPL informed the NRC Staff that it would cooperate with the Staff's data request regarding the consultation process, but stated that there was no factual or legal basis for the NRC's reinitiating of consultation in this case." (SLD-AE-48)

**Response:** *The comment is noted and the text has been updated to reflect the current status of the NRC's effort to reinitiate consultation. Consultation was reinitiated because the NMFS biological opinion dated May 4, 2001 established an incidental take limit for mortalities due to plant operation for green and loggerhead turtles. The limit which would reinitiate consultation was "greater than or equal to" one percent of the annual total capture of green and loggerhead turtles. In calendar year 2001, the licensee reported a total of 5 green and 1 loggerhead turtle mortalities out of 592 recoveries. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-14 and 4-16, line 34 and 22-31, respectively: Delete these lines. GEIS Section 4.5.3 does not address on-site land use. (SLD-AE-40)

**Response:** *The comment is noted. As stated in Table B-1 of 10 CFR 51, Subpart A, Appendix B, the issue of onsite land use applies to all aspects of license renewal. This was discussed in the GEIS, Section 3.2. The text of Table 4-3 was changed to address this issue.*

**Comment:** Page 4-28, line 16-20: The Florida State Historic Preservation Officer has stated that renewal of the operating licenses for St. Lucie Units 1 and 2 would not affect historic properties. Based on this finding, it is not clear why the DSEIS contains the wording at lines 16-20, particularly where no refurbishment activities will occur. This wording should be deleted. The current Environmental Protection Plan addresses the performance of environmental evaluations. This statement bounds the requirements for environmental evaluations. The SEIS should not impose any new or additional environmental commitments. (SLD-AE-42)

## Appendix A

**Response:** *The comment is noted. The text in the draft SEIS does not impose commitments that do not already exist in FPL's Environmental Protection Plans. There was no change to the SEIS text as a result of this comment.*

**Comment:** Page 4-33, line 06: The conversion of 35.3 M.D. should be corrected from  $14.8 \times 10^4 \text{ m}^3/\text{d}$  to  $1.34 \times 10^5 \text{ m}^3/\text{d}$ . (SLD-AE-43)

**Response:** *The comment is noted. The section for which this comment was addressed was changed in response to other comments, and the identified value was removed from the SEIS text. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-35, line 37: Change the word "that" to "than" and strike the words "or equal to." (SLD-AE-45)

**Response:** *The comment is noted. The word "that" is correctly changed to "than." The comment is incorrect with regard to NMFS limits on incidental take. NMFS in its letter dated July 30, 2002, clearly stated that reinitiation of consultation would have to take place if the number of loggerhead and green turtles injured or killed as a result of plant operation were "greater than or equal to" (emphasis consistent with July 30, 2002 letter) one percent of the total number of loggerhead and green turtles taken by the end of said year. The comment resulted in modification of the SEIS text.*

**Comment:** Page E-2, Table E-1: Third entry (FWS and NMFS) – the FPL letters should not be referenced here. The letters from the FWS and NMFS providing the results of the consultation should be provided. The remarks for this entry should also be revised to discuss NRC's consultation versus the correspondence FPL had with the agency. It is incorrect to say that FPL initiated the consultation. If the FPL letters remain in the table, the second letter number should be corrected from PLL.-LR-02-0054 to PSL-LR-0054. (SLD-AE-74)

**Response:** *The comment is noted and Table E-1 has been revised. The comment resulted in modification of the SEIS text.*

**Comment:** Page 4-36, line 10: Strike the words "met or." (SLD-AE-46)

**Response:** *The comment is noted. The comment is incorrect with regard to NMFS limits on incidental take. NMFS in its letter dated July 30, 2002, clearly stated that reinitiation of consultation would have to take place if the number of loggerhead and green turtles injured or killed as a result of plant operation were "greater than or equal to" (emphasis consistent with July 30, 2002 letter) one percent of the total number of loggerhead and green turtles taken by the end of said year. There was no change in SEIS text.*

**Comment:** Page 8-26, line 20: NRC estimates spent SCR catalyst generated from operation of the gas-fired alternative to be 31 cubic meters per year. The source for this estimate is not indicated, but in Section 8.2.2, Page 8-23, Lines 29-30, NRC indicates that, unless otherwise indicated, assumptions and numerical values used throughout this section are from the FPL ER. FPL did not quantify the amount of spent SCR catalyst in its ER. It would be appropriate for the NRC to provide a reference for this quantity. (SLD-AE-71)

**Response:** *The comment is noted and a reference to the amount of SCR catalyst generated per year was added. The comment resulted in modification of the SEIS text.*

**Comment:** Page 8-42, line 40-41: The DSEIS makes the following statement in regard to additional DSM to help to address the capacity that would be lost if the OL's for the two St. Lucie units are not extended: "While the DSM measures would have few environmental impacts, the operation of the new natural gas-fired plant would result in increased emissions (compared to the OL renewal alternative) and other environmental impacts." Delete the phrase, "While the DSM measures ...impacts," and replace with, "Additional DSM that replaces nuclear capacity, in part or in total, will result in FPL's existing fossil fuel units operating at higher capacity factors than they otherwise would, thus increasing total emissions from the FPL system. Start a new sentence, "In addition, the operation of a new gas-fired ...." (SLD-AE-72)

**Response:** *The comment is noted. However, the comment does not contain sufficient supporting information. For example, load curtailment DSM (demand-side management) that shifted energy loads from peak to off-peak hours (e.g., interruptible water heating) could conceivably reduce operation of peak-serving natural-gas-fired turbines and increase operation of coal-fired units with possible consequent increase in environmental impacts. However, DSM (e.g., more efficient air conditioners) that resulted in absolute reduction in energy consumption would likely reduce the operation of base-load coal plants (and possibly gas-fired peaking units as well), thus reducing environmental impacts. There was no change in SEIS text.*

**Comment:** Page 2-35, line 31-37: Note that the projected values for 2010 and 2020 are higher than that presented in ER and a different source is used. However, the growth rates are the same as presented in the ER for these years. In addition, the calculations for the annual growth rates appear to be incorrect. For Martin County the values should be 12.8, 5.8, 2.6, 2.0, and 1.7, respectively for the years presented in Table 2-7; similarly the values for St. Lucie County should be corrected to 7.1, 7.2, 2.8, 2.2, and 1.8. (SLD-AE-15)

**Comment:** Page 2-41, line 05-07: Growth rates provided for St. Lucie and Martin counties (28% and 26%, respectively) are not consistent with values presented in Table 2-7. See earlier comment regarding corrections to this table. These growth rates should be corrected accordingly. (SLD-AE-22)

## Appendix A

**Response:** *The comments are noted. The difference between the draft SEIS and the ER regarding the projected population of Martin and St. Lucie Counties is indeed due to the use of different sources for the two documents. The comment is incorrect with regard to annual growth rate calculations, however. Annual percentage growth is not the decadal increment divided by 10 and expressed as a percentage of the starting population size. Instead, it is the average annual increment gain expressed as percentage, and is derivable from the equation  $N_{[t]} = N_{[0]}*(1+r)^t$ , where  $N$  is population size,  $t$  is time in years, and  $r$  is the annual growth rate expressed as a decimal. The entries in Table 2-7 of the draft SEIS for the periods 1970 to 1980 and 1980 to 1990 are incorrect by between 2 and 4 percent, however, and were corrected. The comments resulted in modification of the SEIS text.*

**Comment:** Page 2-08, line 31-34: Clarify by including information that FPL has dredged the intake canal on several occasions, most recently in the fall of 2002. On one occasion, in the mid-1990's, the dewatered sediments were sold as clean fill. (SLD-AE-5)

**Response:** *The comment is noted and information on dredging was added. The comment resulted in modification of the SEIS text.*

**Comment:** Page xviii, line 26: Delete "and chronic effects from electromagnetic fields." Add period after "justice." FPL did not present an analysis of chronic effects from electromagnetic fields. (SLD-AE-1)

**Comment:** Page 1-07, line 28: Change the word "Westinghouse" to "Combustion Engineering." (SLD-AE-2)

**Comment:** Page 2-01, line 35: Change "Juniper" to "Jupiter." (SLD-AE-3)

**Comment:** Page 2-05, line 28, 31, 34: Change "Florida Aquifer" to "Floridan Aquifer." (SLD-AE-4)

**Comment:** Page 2-21, line 01: The conversion of 236,146 lb of bluefish should be corrected to 107,000 kg. (SLD-AE-10)

**Comment:** Page 2-37, line 20: Delete "and crosses I-95 near Fort Pierce." Add new sentence "I-95 crosses to the west of the Florida Turnpike south of Stuart and crosses back to the east at Fort Pierce." (SLD-AE-18)

**Comment:** Page 2-40, line 25: "are" should be "is." (SLD-AE-20)

**Comment:** Page 2-41, line 37: The values for the agricultural land use for both St. Lucie and Martin County should be corrected in accordance with corrections made in Table 2-9. (SLD-AE-23)

**Comment:** Page 2-41, line 38: The reference for agricultural land use values should be corrected from Table 2-10 to Table 2-9. (SLD-AE-24)

**Comment:** Page 2-42, line 24: Second column should be titled "Total Property Tax Levied for all Property in St. Lucie County." (SLD-AE-27)

**Comment:** Page 9-05, line 28, 29: Delete the phrase "except for the SAMA identified above." Put a period after "warranted." (SLD-AE-73)

**Comment:** Page E-2, Table E-1: Fourth entry (U.S. Army Corps of Engineers) – the Authority information should be revised to read, "Rivers and Harbors Act (33 USC 403) and Clean Water Act (33 USC 1344). [sic] (SLD-AE-75)

**Comment:** Page E-3, Table E-1: Provide a note that the NPDES permit is the Industrial Wastewater Facility Permit. In Chapter 2 of the DSEIS it is mentioned several times as the Industrial Wastewater Permit. This would create a link for the reader. (SLD-AE-76)

**Comment:** Page E-5, Table E-1: First entry – The updated information is: 1) 56-01238-W expires 5/21/2009. (SLD-AE-78)

**Response:** *The comments are noted and the proposed change made. The comments resulted in modification of the SEIS text.*

**Comment:** Page E-4, Table E-1: Updated information for these annual FWCC permits is as follows: 1) 01S-018 has been replaced by 02R-018 and expires 6/30/2003; 2) TP#206 expires 1/31/2003; 3) TP#125 expires 1/31/2003; Last entry – "next" should be corrected to "nest" in the Description column. (SLD-AE-77)

**Response:** *The comment is noted and the proposed changes made in part. The commenter is incorrect with respect to the correct designation of the State issued marine turtle permit. The NRC staff verified with the Florida Fish and Wildlife Conservation Commission information concerning permit TP#026, as correctly stated in the draft SEIS. As appropriate, the comments resulted in modification of the SEIS text.*

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**Comment:** Page F-2, line 15-16: Groundwater quality degradation (saltwater intrusion) is an applicable issue to St. Lucie due to their indirect use of groundwater through the municipal supply for potable and service water. Therefore this issue should be deleted from the table and appropriately discussed in Section 4.5. (SLD-AE-79)

**Comment:** Page F-2, Table F-1: Groundwater use conflicts (potable and service water and dewatering); plants that use >100 gpm should be added to the table as not applicable because St. Lucie Units 1 and 2 do not withdraw groundwater. (SLD-AE-80)

**Response:** *The comments are noted. Saltwater intrusion is indeed a Category 1 issue and applicable to St Lucie and has been deleted from Table F-1 and included in Section 4.5. The staff also agrees with the licensee that the issue of groundwater use conflicts (potable and service water and dewatering; plants that use >100 gpm), a Category 2 issue, should be added to Table F-1 since the St. Lucie plant potable and service water usage is only 91 gpm. The comments resulted in changes to Table F-1.*

**Comment:** Page 2-38, Table 2-9: Values presented in this table should be verified and corrected. Given the residential land use for St. Lucie County of 138 mi<sup>2</sup> is correct, the conversion to km<sup>2</sup> should be corrected from 97 to 357. The sum of the land use values for St. Lucie County in mi<sup>2</sup> should be corrected from 542 to 641. If correct, the percent of total values should be corrected. (SLD-AE-19)

**Response:** *The comment is noted and the appropriate conversion made. The comment resulted in modification of the SEIS text.*

**Comment:** Page 2-41, line 04: The value given for the population of Stuart, 14,633 is inconsistent with that stated in the ER (4,633). The number in the ER contained a typographical error and the value presented in the SEIS has been verified to be correct. (SLD-AE-21)

**Response:** *The comment is noted. In our letter of October 23, 2002, the staff requested that the licensee, Florida Power and Light Company, provide comments on the draft SEIS for St. Lucie. Corrections to the licensee's ER can be made by the licensee by letter amending the document. There was no change in the SEIS text.*

**Comment:** Page 2-41, line 41: The number of farms in St. Lucie and Martin counties (805) is inconsistent with that presented in the ER (359). The value presented in the ER has been verified to be correct for the number of farms that hire and the number presented in the SEIS has been verified to be correct for the total number of farms. Relative to the discussion of migrant farm workers, it would be more appropriate to use the number of farms that hire. (SLD-AE-25)



**Response:** *The comment is noted and the staff agrees that it is more appropriate to use the number of farms that hire with respect to a discussion of migrant farm workers. The comment resulted in modification of the SEIS text.*

**Comment:** Page 2-32, line 27: This section, “Radiological Impacts” is not appropriate in this chapter. The conclusions regarding the effects and impacts of offsite emissions should be moved to the corresponding section in Chapter 4, Section 4.3. (SLD-AE-13)

**Response:** *The comment is noted. This section reports information obtained from the licensee regarding the radiological environmental monitoring program (REMP) conducted by the utility. The information provided in this section summarizes the findings related to the REMF. This information is used to evaluate the radiological impacts during the license renewal period described in Section 4.3. There was no change to the SEIS text.*

#### **A.4.17 Other Comments**

**Comment:** The Department of Interior has reviewed the referenced document. We have no comments to provide for your consideration. (SLD-AB-1)

**Response:** *The comments provide no new information; therefore, the comments were not evaluated further. There was no change to the SEIS text.*

## A.5 Public Meeting Transcript Excerpts and Comment Letters

### Transcript of the Afternoon Public Meeting on December 3, 2002, in Port St. Lucie, Florida

[Introduction, Mr. Cameron]  
[Presentation, Mr. Dudley]  
[Presentation, Dr. Masnik]  
[Presentation, Ms. Hickey]  
[Presentation, Dr. Masnik]

MR. CAMERON: Okay, great.

And thank-you, Mike and thank all of you for your attention during the presentations. The staff from the NRC and also some of our experts will be available after the meeting if there's particular subjects you want to discuss in further detail.

And now it's our opportunity to listen to you. And first of all, we're going to have Mr. Doug Anderson, who's the County Administrator for St. Lucie County.

We have some other government officials, but next we're going to go to Mr. Bob Bangert from the Conservation Alliance.

Mr. Anderson.

MR. ANDERSON: Good afternoon.

Thank-you for letting me go first. I really appreciate this.

St. Lucie County is one of the fastest growing economies in the State of Florida, if not the fastest growing economy. We have gone virtually from last place in the State of Florida for percentage of new jobs created, to almost number one. In fact, we may be number one, with recent announcements we've just made.

SLD-A-1 If the St. Lucie Plant were closed, the loss of eight hundred full-time jobs in our community would be devastating to our economy.

SLD-A-2 The St. Lucie Power Plant provides our industry with a reliable source of electricity. In St. Lucie County, we're not like other areas of the country where you experience brownouts or blackouts. Our industry, as a diversified industry we have here now, relies heavily on a steady source of electricity and a reliable source.

- SLD-A-3 Florida energy demands are growing at about two percent annually. Electricity from the St. Lucie Power Plant can meet the energy needs of more than one-half million homes. Each St. Lucie unit produces 839 million watts of energy.
- SLD-A-4 The St. Lucie Plant is among the lowest cost producers of electricity in the FPL system, and this helps keep our electric bills low. And that is one of the attractions to our area for industry. The high energy users come here, looking at utility rates is one of their objectives.
- SLD-A-5 Our power bills are more reasonable than most others in the country, in part because of this plant, and we want to keep our power bills low and our quality of life high.
- SLD-A-6 We want to keep the St. Lucie Power Plant as part of our future. The site is already established. They're continuing to operate – the continuation of operating this facility means no new land would be disturbed to construct a new facility to replace this one.
- SLD-A-7 It is my understanding that replacing the two reactors with the equivalent electric producers such as oil, or gas, or coal, could have greater pollution and ecological impacts.
- I have lived in St. Lucie County now almost eight years, I've lived and worked here, and I've grown to know the St. Lucie Plant and I have worked with the different people there, and they are good neighbors.
- I have some examples here of some of the things that they've done and they've worked very closely with the County administration.
- SLD-A-8 The St. Lucie Plant employees are leaders in contributions to the local area agencies such as the United Way. They support the St. Lucie County Education Foundation in a scholarship program. The employees are involved in youth development through Scouts, Little Leagues, civic and church programs and activities. The employees volunteer for Habitat for Humanity in building homes for low income residents.
- SLD-A-9 The plant's information center, the Energy Encounter, holds forty thousand visitors annually. In addition to hands-on science programs for schools, the center offers free workshops to teachers for training credits and walk-in visitors are always welcome.
- The power plant donates computers and school supplies to local schools. And FP&L has made substantial contributions to the county's regional sports stadium, which is located in St. Lucie West. And the St. Lucie County Marine Center that features the Smithsonian Marine Eagle System exhibit, as well as many other community projects.

I know a few months ago, we were putting together a financial package to purchase a mobile command center to be used directly between the City of Fort Pierce Police Department, the

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Sheriff's Office, the Fire District and County Administration. I went to FP&L and asked if they could contribute towards this mobile finance center, because while we do have incidents in a lot of cases they are also on site and they work with us to plan what action we have to take. Within a few weeks they called me back and they said yes, Doug, we will financially contribute, and they presented us with a check, and that's a good neighbor.

SLD-A-10 The impact of the St. Lucie Plant on our local economy is more than eighty million dollars  
SLD-A-11 annually. The thing that impresses me most about the St. Lucie Plant is its reputation.

I've heard about the good ratings the plant has received through the years from the NRC, the agency here today, that watches over your plants. I encourage the NRC to renew the license at St. Lucie Plant, Units 1 and 2.

Thank-you.

MR. CAMERON: And thank-you very much, Mr. Anderson.

Next we're going to hear from Bob Bangert from the Conservation Alliance.

MR. BANGERT: Good afternoon members of the U.S. Regulatory Commission. My name is Bob Bangert and I represent the Conservation Alliance of St. Lucie County.

It's interesting before I start my presentation, my wife and I have traveled eleven thousand miles this summer, covering twenty-eight s, and the question was raised about alternate energy. We saw windmills all over. And when I got back, I investigated a little bit and to my surprise I found out that one of the subsidiaries of FP&L group is the largest producer of wind power in the United States and possibly the world.

SLD-B-1 First of all, I want to express my appreciation to those who drafted this report, for including a  
glossary of the acronyms used in the report. I sure saved a hell of a lot of looking back.  
Wouldn't it be nice if all government agencies and all consultants did the same.

SLD-B-2 The Alliance is also very impressed by the systematic and completeness of the report in  
evaluating the environmental consequences of renewing the licenses for the St. Lucie FP&L  
Plants 1 and 2, for operation for an additional twenty years.

Two county parks with beach access, Blind Creek Pass Park and Walton Rocks Park lie within the property boundaries of FP&L, and have been included in an Adopt a Beach program

instigated this year through the Conservation Alliance, partnership with the Conservation Alliance and the City of Fort Pierce and St. Lucie County. Quite a unique partnership.

Volunteers have signed contracts to clean up the litter from these beaches at least once every two months.

SLD-B-3 One of our primary concerns in the past has been the offshore ocean intake structures. The company, by installing and maintaining three barriers of these intake structures to reduce potential loss of marine life, particular sea turtles, and to facilitate their return to the ocean recognized our concerns.

The addition and construction of a new smaller mesh barrier east of the larger mesh barriers, plus an active program, including recovery of turtles from the intake canal, has greatly reduced any harm to entangled turtles.

FP&L's program, which includes recovery of turtles from the intake canal and barrier nets, are monitored seven days a week, eight to twelve hours a day, by Quantum Resources is exemplary. In addition to the entanglement nets which are used only during daylight hours under continued surveillance, plus turtles removed with the dip nets and in many cases, the divers go down and take them out bodily. FP&L constantly is evaluating the program to minimize any trauma to captured sea turtles.

Our Conservation Alliance honored one of these divers, a Michael Breshett (phonetic), at our Annual Awards Luncheon last May, for his work with entangled turtles while on the job, as well as his constant vigilance on his own time.

Captured healthy turtles are tagged before being released back into the ocean and many have shown up on distant lands, such as Costa Rica, Cuba, and many other places.

Among many of the turtles recently captured have been showing evidence of tumors on the soft sections of their skin, the origin of which has not yet been determined. However, there is growing evidence that intrusion of treated waste water from deep well injections in the area, may be linked to these tumors.

These turtles are sent to rehabilitation facilities determined by the Florida Fish and Wildlife Conservation Commission.

SLD-B-4 I cannot stress strongly enough our commendations for FP&L's continuing efforts to improve any areas that they find may be having a detrimental effect on the environment, on any portion of their eleven hundred plus acres on the island adjacent to Plants 1 and 2, or along its transmission lines.

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Now, if all of FP&L's customers in St. Lucie County and the would be as diligent in their treatment and care of the environment, our future generations would be assured of enjoying this special piece of paradise we call St. Lucie County.

Thank-you.

MR. CAMERON: Okay, thank-you very much, Mr. Bangert.

Now we're going to hear from a trio of government officials and then we're going to go to Gary Cantrell and Judi Miller. But in terms of the government officials, we have Ron Parrish, Deputy Chief, St. Lucie Fire District, who's going to start us off. And then we have Gary Wilson from the St. Lucie County Sheriff's Office, and Steven Wolfberg from the Martin County Department of Emergency Service.

And this is Ron Parrish.

MR. PARRISH: Good afternoon.

And as he said, I'm Ron Parrish. I'm Deputy Chief of Administration for the St. Lucie County Fire District.

I'm here today to represent the Fire District as well as the Fire Chief, Jay Sizemore, and to talk a little bit about the collective efforts that Florida Power and Light and the Fire District have done to enhance and improve the training for the safety of the public, the plant itself. This has been ongoing for as long as I can remember.

SLD-C-1 I've been directly involved with some very intense training with Florida Power and Light. And we feel as though they've been a great corporate partner in the enhancement of the training and the safety of the citizens of St. Lucie County, and we support relicensing of the power plant.

Thank-you.

MR. CAMERON: Okay, thank-you very much, Ron.

Let's next go to Gary Wilson.

MR. WILSON: Good afternoon.

As it was said, my name is Gary Wilson. I'm the Chief Deputy with the St. Lucie County Sheriff's Office.

SLD-D-1 I am here today representing the Sheriff's Office and the impact that FP&L has on our county. And, of course, our interest is one of safety and security, and one that addresses the crime issues that impact us every single day. And we're happy to say that on all of those fronts, FP&L is not a problem for us and in fact, it is a great benefit to the county and our efforts, as far as the safety and security at the plant, and also the impact that they have on our community from a crime basis.

SLD-D-2 The employees at the power plant pose no problem for law enforcement. And they are certainly, as Mr. Anderson pointed out earlier, a great neighbor for us to have here in St. Lucie County.

SLD-D-3 From a safety and security standpoint, the St. Lucie County Sheriff's Office works closely with the security department out at the plant to ensure that all of those issues that of concern for a lot of people who live in the area out there are taken care of, and that working relationship is a very strong relationship and one that we're very proud of.

So on behalf of law enforcement in St. Lucie County, we are in support of license renewal for the power plant.

Thank-you.

MR. CAMERON: Okay, thank-you very much, Mr. Wilson.

And we're going to hear from Steven Wolfberg and then, I neglected to mention Don Daniels, who is the emergency management coordinator for St. Lucie County.

And this is Steven Wolfberg.

MR. WOLFBERG: Good afternoon.

Steven Wolfberg, Director of Martin County Emergency Services, which represents fire rescue and emergency management.

SLD-E-1 We're here in support of the Nuclear Regulatory Commission's relicensing of St. Lucie's Unit 1 and 2. We have had a relationship with the power plant for over twenty-three years that, my contemporary and myself, I've been with the department. During this time we've been able to build a model partnership in relationships between FP&L and the county, and the benefits going both way. The relationship, the partnerships mature, it's credible and it's ongoing.

We consider St. Lucie Power Plant a partner in our planning, our response and operating, and continuing education in emergency services as well as just good friends, partners and corporate partners.

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On behalf of Martin County Emergency Services, again, we support the relicensing for Unit 1 and 2.

Thank-you.

MR. CAMERON: Okay, thank-you very much, Mr. Wolfberg.

Let's go to Don Daniels.

MR. DANIELS: Good afternoon.

My name is Don Daniels. I've been a resident of St. Lucie County for over thirty-seven years, and in the last twenty-eight years I've been involved in emergency services of one type or another. I've been with Emergency Management in the St. Lucie County Public Safety Department for the last sixteen years. And I'm here to fill in today for our Director, Mr. Jack Southern, Director of Public Safety and just to give you some of the comments from our agency.

SLD-F-1 There are many reasons the plant should continue operating. Part of it is the importance to our  
SLD-F-2 community as was stated earlier, being a good neighbor, and it also has had a good  
environmental record as been pointed out. But none of these things would matter if the plant did  
not operate safely. And this is something we've come to learn through our office and through  
dealing with the people at the plant, that they have our safety and concern at heart. Many of  
them are our neighbors. They live in our community. They are just as concerned for their  
families as they are for anyone else's.

This office receives – our office, Emergency Management receives a quarterly, on a quarterly basis, a report that indicates each and every day that this plant meets its performance standards.

SLD-F-3 And, for example, our office also receives timely briefings and correspondence regarding in-  
place procedures and checks by an independent quality assurance organization, and that this  
ensures timely preventative maintenance is done. These reports show that St. Lucie Plant is  
committed to the safety of residents surrounding the plant.

SLD-F-4 But most important is their pro-active involvement in offsite and on site emergency planning. Of  
course, on site, meaning dealing with anything particular, at their particular plant facility. Offsite  
meaning, meaning our affected population, our population in our community.

We have exercises on a regular basis and at least one a year. There are minor exercises during the course of the year. We are evaluated on, at our agency by Federal Emergency Management Agency, for our duties and responsibilities, and how we carry them out, and our actions for offsite safety for citizens. And basically for Martin County and St. Lucie County, our



evaluations I know of over at least the last sixteen years, have been flawless. And we have proved that we can help protect the citizens of our counties.

We also receive from the State of Florida's Department of Health and Bureau of Radiation Control, monitoring tests of radiation levels at locations surrounding the nuclear plant. Monitoring and testing include the sampling of air, water, shoreline sediment, fish, crustacea, broad leaf vegetation and milk. And these levels have consistently been comparable to those measured throughout the for the past twenty-five years.

SLD-F-5 It is clearly evident that the employees of the St. Lucie Plant are dedicated to making sure the plant is safe, not only for themselves, but for their families, friends and neighbors. This agency, the St. Lucie County Department of Public Safety, supports the license renewal of the St. Lucie Plant.

Thank-you.

MR. CAMERON: Okay, thank-you very much, Mr. Daniels.

Next two speakers is Gary Cantrell, who is the Chief Executive Officer of the St. Lucie Medical Center, and then we'll hear from Judi Miller.

MR. CANTRELL: Good afternoon.

My name is Gary Cantrell. I'm the CEO of St. Lucie Medical Center, but I'm here representing the Economic Development Council of St. Lucie County. For me, the same reasons that you heard from everybody else, we also support appeals, license application.

SLD-G-1 The Economic Development Council is very supportive of it, from the standpoint that we need the power and we need electricity. Our charge is to help bring industry to the community. We have to have a power source when they get here, that's affordable in our dealings with companies coming from throughout the country and looking at our community, our power rates are very favorably priced, relative to where they're coming from.

So we're very much in support of renewing their license and support their application.

MR. CAMERON: Okay, thank-you, Gary.

We're going to go next to Judi Miller, who's with the St. Lucie County School Board, and then we're going to hear from Florida Power and Light.

MS. MILLER: Good afternoon.

## Appendix A

I'm Judi Miller for the record. I'm a member of St. Lucie County School Board and Executive Director of Big Brothers, Big Sisters. I'm here not to speak on behalf of our school board, but to speak as an individual, and I am in support of the license renewal.

I know that you all have heard reports from the safety and environmental impacts this afternoon, people who are far more skilled in those areas than I am.

SLD-H-1 I'm here today to speak as somebody who has lived here in this community for thirty years and seen the kind of partner and good neighbor that FP&L is to our community and our families here.

And I've seen that firsthand, both through the school system and all of the things that FP&L does, from the Energy Encounter, to training kids, to the supplies and materials that they donate, to the manpower that they donate, to school system committees, to the help, and support, and resources they provide for community agencies such as Big Brothers, Big Sisters and United Way, so I truly support the license renewal.

Thank-you.

MR. CAMERON: Okay, thank-you, Judi.

Next we're going to hear from Mr. Don Jernigan, who is the Site Vice-President at St. Lucie, and then we're going to hear from Tom Abbatiello, who is the environmental lead on the St. Lucie license renewal application.

Okay, Don.

MR. JERNIGAN: Good afternoon, and thank-you, Mr. Cameron.

My name is Don Jernigan and I am the Vice-president of Florida Power and Light Company, St. Lucie Nuclear Power Plant. I appreciate this opportunity to speak to you today about FPL's application for renewal of the St. Lucie operating licenses. Assisting me today is Tom Abbatiello, our license renewal project environmental lead, who will also address more specifically, the findings contained in the draft supplement Environmental Impact Statement.

SLD-I-1 But I would also like to thank the Nuclear Regulatory Commission for arranging and holding this meeting today. FPL strongly supports the openness of this process.

During the last two years, we have been involved in dialogue with the community surrounding the St. Lucie Plant. In fact, we have met with more than one thousand home owners, community groups and government officials. In those meetings, our purpose was to simply share information about what license renewal is about and about our plant operations.

We believe that the community answers and priorities should be incorporated, not only into the renewal of our St. Lucie Plant operating license, but also into our overall plant operations. Community input is an integral part of the license renewal process.

The application that we have prepared consists of two parts, as was discussed earlier today, a safety analysis and an environment report. The application has been open to public review for some time and the NRC has requested on several occasions, comments from interested parties.

Just as this process has been open in reviewing the environmental aspects of license renewal, the safety analysis is also following a parallel path. There are open public meetings and the NRC is going through an intensive review of plant systems to ensure the safe operation of the power plant for an additional twenty years.

A public meeting on the scoping of the NRC's environmental review over license renewal application was held here in this very room last April of this year. Today's meeting continues that open process of seeking public input on license renewal.

We welcome this opportunity to gain additional community input on the environmental aspects of our license renewal.

I'd like to particularly thank the members of the community that are here represented today for taking time out of your busy schedules to share your views and ideas of this draft report with the NRC, and I also appreciate the support that has been provided to us by the local communities.

SLD-I-2 I'd also like to thank the NRC staff and members of the National Laboratory, their review team, in their work of preparing the supplemental Environmental Impact Statement for the St. Lucie license renewal. I believe that this report has reflected a comprehensive assessment of the environmental impact of license renewal.

SLD-I-3 As the vice-president of St. Lucie, my first job and my primary focus is the health and safety of my family, the St. Lucie employees in this community, and their well being comes before anything else. And when I look at the evidence as presented in this supplemental Environmental Impact Statement and other license renewal documents that have been submitted, I'm assured that the plant's safety and a positive impact on our environment exists with these reports and what's contained in them.

I believe the case for continued operation of the St. Lucie Plant is strong. And let me address while I'm here, four areas:

One, our plant performance, the economics of the St. Lucie Plant electricity, our environmental stewardship and community presence.

SLD-I-4

## Appendix A

First, the performance of our power plant is top notch, thanks to our employees, which we've got a couple here in the audience today. Their time, their effort, their dedication have resulted in St. Lucie consistently being recognized as one of the safest and most reliable, and most efficient plants in the United States. Our employees have worked diligently through effective maintenance programs to sustain the option for continued plant operation well beyond the initial four year license.

Not only does the NRC monitor our performance, but there are other independent agencies that have also agreed that our operations are safe and they have no adverse impacts on the surrounding community. This includes the State of Florida's Department of Health, which conducts monitoring and sampling for the area around the St. Lucie Plant.

- SLD-I-5 Another fact to consider is our ability to help meet Florida's energy needs. As we've stated, Florida is growing two percent a year and the St. Lucie Power Plant can help sustain the economic growth and maintain our quality of life.
- SLD-I-6 This power plant is strategically located within the FPL generating system. And the St. Lucie Plant is among the lowest cost of electricity within the FPL system. So we help keep the electric bill low, and that's good news for our customers.
- SLD-I-7 And from an environmental standpoint, the St. Lucie Plant remains a guardian of our 's natural resources. Our outstanding sea turtle programs are recognized throughout the this year by the Governor. And in addition, we can continue to produce clean electricity without air pollution or greenhouse gases.
- SLD-I-8
- SLD-I-9 Finally, what does St. Lucie mean to our community? Well, we've asked our neighbors and they've told us that we're an important economic factor in this community, one that they want to see remain as a viable contributor. The payroll for around eight hundred employees, the tax dollars, the property taxes, the purchases, the contributions to the local United Way agencies help in this area.
- SLD-I-10 But more importantly is a role that the people at the power plant have played in this community. Our employees are active in their churches, and scout organizations, and PTAs, and Little Leagues, and even in local government.

And as a testimony to our community role, many members of the local community have spoken here today and have spoken here in this very room in April's public scoping meeting on the environment review of our license renewal application.

In summary, I believe that the reviewing of the licenses of the Florida Power and Light St. Lucie Nuclear Power Plant is in the best interests of our community in continuing to provide safe, clean, reliable, low cost electricity to our customers.

What I'd like to do is ask our license renewal project environmental lead, Tom Abbatiello, to give a little bit more detail on the FPL license renewal efforts and a little comment on the Draft Environmental Impact Statement.

Tom?

MR. ABBATIELLO: Thanks, Don.

Good afternoon everyone. It's an honor to be here today to share my thoughts with you about the supplemental Environmental Impact Statement for the St. Lucie license renewal.

As Don said, my name is Tom Abbatiello and I am the environmental lead for the St. Lucie license renewal project.

SLD-J-1 The supplemental Environmental Impact Statement for the St. Lucie license renewal provides a thorough examination of ninety-two environmental issues addressed in the regulations. This very broad approach has been thoughtfully designed and is intended to cover the wide spectrum of issues that might be raised by members of the public for governmental review agencies.

SLD-J-2 The supplemental Environmental Impact Statement concludes that the environmental impacts from operating St. Lucie for an additional twenty years, would be small. This conclusion is based on the detailed analysis of the impact areas. I agree with this conclusion. It is the same conclusion that was made in FPL's environmental report prepared as a part of our application.

But another reason I believe that St. Lucie should operate for an additional twenty years, is to be able to continue the award winning conservation work that was initiated almost twenty years ago.

SLD-J-3 FPL is proud of the work we do to preserve and protect the environment. We believe in our responsibility to operate in harmony with the environment. St. Lucie's unique location successfully combines modern technology with a strong environmental commitment.

As Don alluded to in his talk on October 8th of this year, Governor Bush and the Florida Cabinet presented FPL with a 2002 Council for Sustainable Florida Environmental Award.

This award, which is on display out in the foyer, recognizes FPL's program at the St. Lucie Plant for the preservation and education on endangered sea turtles. The sea turtle protection and preservation program will continue during the license extension period.

SLD-J-4 The renewal of the St. Lucie licenses is important in meeting the energy needs of South Florida. As been stated already in this meeting, our growth rate is about two percent a year and the electricity being consumed per customer is also increasing.

## Appendix A

Because of this increasing demand, FPL must plan and provide power plants to assure an ample supply of electricity. And to that end, a robust network of generation is best sustained by the use of diverse fuels.

The review of the St. Lucie operating – the renewal of the St. Lucie operating licenses permits FPL to continue to provide over 1700 megawatts of environmentally clean and low cost generating capacity, free from dependence on foreign oil.

SLD-J-5 The St. Lucie employees want to remain a part of this community. As your neighbors, safe and reliable operation of the St. Lucie Nuclear Plant is our top priority. We believe license renewal makes good sense. It makes good business sense for both FPL and its customers. And in light of the current situation in the world, we also believe that it is the right thing to do for our country.

Thank-you.

MR. CAMERON: Thank-you, Tom and Don Jernigan.

We're going to hear from Jim Vojcsik now, from United Way of Martin County. And then we're going to hear from Arlease Hall, and then go to Frank Leslie, Bill Raatz and Ralph DeCristofaro.

MR. VOJCSIK: Good afternoon.

My name is Jim Vojcsik and I am the Executive Director of the United Way of Martin County. My wife, Donna and I, and our two children have lived in this area since 1999, and we care about the quality of life, about the safety and about the environmental health of our community.

SLD-K-1 I would like to add my voice to those today, who are supporting the license renewal for Florida Power and Light St. Lucie Nuclear Power Plant.

SLD-K-2 As has been stated, demands for energy in our communities on the Treasure Coast are growing annually and we need power from this plant to meet the growing needs for low cost electricity. Florida Power and Light has a good track record of not only providing the power we need, but operating this plant safely and protecting the environment.

SLD-K-3 As one of the largest employers in our area, the St. Lucie Power Plant is important to our local economy. A business of this size would be very difficult to replace.

SLD-K-4 The St. Lucie Power Plant is a good neighbor. I know personally, several of the employees at the plant, who donate their time and their money to making our communities better places to live. They contribute hundreds of thousand of dollars and volunteer hours each year to charitable organizations on the Treasure Coast, including the United Way, and are making a huge difference in our communities.

For all the reasons I mentioned, we should renew the license of the St. Lucie Power Plant for twenty more years.

Thank-you.

MR. CAMERON: Okay, thank-you, Mr. Vojcsik.

Arlease Hall.

MS. HALL: Good afternoon.

My name is Arlease Hall and I'm back again. Again, it was my decision to support the license renewal of the St. Lucie Plant today and there are a myriad of reasons as to why the plant should continue to operate.

SLD-L-1 Some folks, a lot of folks have come before me today, to reiterate the reasons why they support Florida Power and Light. Why? Because the St. Lucie Plant is important to the community. The St. Lucie Plant benefits our local economy tremendously. The St. Lucie Plant has been an excellent partner and neighbor, be it community or in business. The St. Lucie has contentious, dedicated and well trained employees.

And what comes to mind to me sometimes, when I'm going to some QIQA – another acronym – but when you're looking at all of the power points, Florida Power and Light comes up, as being one of those organizations that first implemented in being on line with QI in sterling criteria.

SLD-L-2 The St. Lucie Plant has been and has a good environmental record. The St. Lucie employees  
SLD-L-3 make our community a better place to live because of their safety record, and that's what's so vitally important to me, the safety record. Because all those well trained individuals that meticulously – they meet the performance standards set at the highest of quality levels daily.

SLD-L-4 I feel very strongly about the things that I say to you this afternoon, because I work here and the employees live in this community. They are dedicated to making certain that the plant is safe, not only for themselves, but for their families, friends and us, because we are their neighbors.

SLD-L-5 St. Lucie's safety inspection record has been rated as one of the most reliable nuclear power plants, not only of the U.S., but in the world. I strongly believe that the St. Lucie Power Plant has a proven safety record and one with which the employees can continue to build on in the future.

I definitely support and again certainly speak for my friends and neighbors for the license renewal of the St. Lucie Plant, so let's keep it operating again for the next twenty years.

Thank-you.

## Appendix A

MR. CAMERON: Okay. And thank-you, Arlease, for those comments.

We're going to hear from Frank Leslie next and we're going to go to Bill Raatz, and Ralph DeCristofaro.

Frank?

MR. LESLIE: Good afternoon.

SLD-M-1 I'm interested in renewable energy in particular, and so I'm somewhat focused on that. I did read the SEIS, Supplement 11 and found it very interesting. And I especially commend that writers of that report for doing such a good job in the field of alternative energy.

SLD-M-3 There is a great difficulty within Florida to find a replacement source of energy, something that is cleaner or better in some sense than the exiting nuclear power plant. I look at that from the standpoint that if this plant were to be replaced with the coal brought in by rail car, would it be oil, which we certainly should save for transportation aspects, or would it be natural gas, which has a limitation itself.

SLD-M-4 There are difficulties with wind and solar. It's a very diffuse energy, as opposed to fuels. And as such, I tend to look at that as something that will become much more of use in other areas of the nation. It's not only the resource of wind and solar, but also the economics of the situation.

SLD-M-5 Florida enjoys relatively low costs for kilowatt hour, whereas other s, which do have wind and solar, may have very high costs. And that is an offsetting factor in installing wind turbines or solar module farms.

There are many aspects of solar and wind energy within Florida. It was alleged to be the sunshine back in the twenties, but in fact, the amount of energy that we receive from the sun is roughly about the same as in Wyoming. Unfortunately, in my way of thinking, Arizona should be the sunshine.

Sunshine is, of course, limited here by cloud banks coming in with the sea breeze. Solar energy is blocked by these clouds. And so we only get about roughly 4.7 hours per day of effective solar energy. It's similar, very similar with wind energy.

There are frontal storms that come in from the northwest. We see those periodically for five day periods. But in terms of the sea breeze energy, it begins roughly about nine o'clock, dies out about five, five p.m. And as such, it may have some future as a peeking energy reduction.



I'm not here to represent Florida Institute of Technology, but I'll be teaching a renewable energy course there. And we presently have an extremely small DOE grant to study wind and solar under sea breeze conditions. So we're looking to establish what that is.

Many years ago, the PNNL created a very extensive wind energy atlas, and they're fairly large squares if you will, or rectangles in partial degrees of latitude and longitude, to which numbers were assigned. Those were based on existing airport weather station information and as such, they did a good job in covering the entire country with not only a wide view S map, but individual maps for the various s.

Within Florida we have the lowest level in the interior of the , Class 1 level, and we have Class 2 in the coastal regions, purely because of that on shore breeze and winds there coming from storms offshore. That makes it very difficult. You can put the two of them together in a hybrid system, but it's a very small amount of energy in comparison with large base load plants, whether they're coal, or oil, or natural gas fire, or whether they are nuclear.

So that puts Florida in a difficult situation. Their primary source of alternative energy would be bio mass combustion. That requires large land areas, harvesting, transporting, processing, and when you burn it, you get a little less CO<sub>2</sub> out than you do with the fossil fuels, but it's still a limitation.

SLD-M-2 And so, in looking at the work that has been done within Supplement 11, the comparison of small, moderate and large impacts on the environment, it appears to me that the nuclear option is the best way to continue and I'm supporting that.

Thank-you.

MR. CAMERON: Okay, thank-you, Frank, for that information on alternatives.

And let's now go to Bill Raatz.

MR. RAATZ: Hello, my name is Bill Raatz. I don't represent any group. I'm just a concerned citizen and a resident of Port St. Lucie.

I live approximately, well, within a radius of approximately two miles of the nuclear facilities.

And just found out about this forum yesterday and I felt compelled to come here and I didn't anticipate speaking, I'm not a public speaker. I feel very anxious about doing this, but I feel this is too important an issue to just leave to the experts and to the vested interests that are obviously represented here.

## Appendix A

SLD-N-4 And I think, like a lot of people, I presumed until fairly recently, that nuclear power was going to be phased out in this country, that there are too many problems with it, things that have been raised by a lot of people. Just, you know, stressed facilities, disposal of nuclear waste, nuclear accidents. Most recently there's concern about terrorist threats and how that affects nuclear facilities. And so, you know, I was, like everyone else, concerned about that.

SLD-N-5 And one thing I also want to mention, I used to live in Detroit and I had a cottage in Canada on Lake Erie, and from my – I could look out across Lake Erie and see the Davis Besse facility in Ohio. And there were – and I always thought like, jeez, what would happen to the Great Lakes system if that facility or Fermi 1 or 2 had an accident, you know, would that totally destroy or obliterate the Great Lakes water system. And there were, I know that there were periodic discharges of radioactive water into Lake Erie. And I remember, you know, there were always these reassurances that that's no concern to the human population.

But I, you know, when I would see hundreds of dead fish wash up on my beach right after that, I was not reassured. And then just recently, you know, we've heard about, you know, problems with that facility in Ohio.

SLD-N-1 I'm sorry if I'm rambling here, but as I said, I just hastily scribbled a few things down here. As I indicated in my question, if Florida Power and Light is given this mandate to continue to operate the older facility for thirty-four years, forty-one years for the newer facility, what inducement, what incentive, impetus is there for them to ever seriously consider any other alternatives to nuclear energy, safer alternatives, renewable sources of energy.

SLD-N-2 So I guess I would have to be some of these – maybe the sole person here who is opposed to an extension of the operating license. I think it's premature that we should focus on looking at alternatives, and I know that's not the, consistent with the national energy policy, which I believe is just – our government is just manipulating public fears about energy shortage in the future, so I know that's not consistent with our national, current national energy policy, but I think we should focus on looking at those alternatives. And also, a real – make a real effort at conservation education and, instead of wasting energy like we do.

SLD-N-3 I guess that's about all I have to say. Thank-you very much.

MR. CAMERON: And thank-you, Bill, for taking the time to come to the meeting and also to talk.

And Mr. DeCristofaro, do you want to come up here?

All right.

MR. DE CRISTOFARO: Okay, my name is Ralph DeCristofaro and I'm just basically a concerned citizen and I'm a resident of the area.

I have a very short statement. This may or may not be the right forum for it, but I'd like to get it on the record.

SLD-O-1 My concern is one of safety. It's not so much of an internal accident that may occur, but something that was thrust upon us on 9/11/2001, by a real threat of terrorism, okay?

I know I'm not alone on this, but my concern is that of a terrorist attack on any nuclear plant, whether it's a – in the same way that they did with the Twin Towers in New York City. I really, I guess what I'm looking for is reassurance that everything is being done for everyone's safety, relating to this.

Again, this may be the wrong forum, but I just wanted to get my thought on record. I thank you.

MR. CAMERON: Okay, thank-you very much.

Next we're going to hear from Betty Lou Wells and then Havert Fenn.

Betty Lou?

MS. WELLS: For a while there I was afraid I was going to be the only Grinch in the crowd, but it seems like I have one or two similarly minded people.

My name is Betty Lou Wells. I reside at 1124 Jesmine Avenue, in Fort Pierce, St. Lucie County, Florida 34982.

Over thirty years ago, I was a member of three community organizations, which attended NRC public hearings on Florida Power and Light's request to build a nuclear power plant now known as St. Lucie 1, and followed by St. Lucie 2.

The three organization were the League of Women Voters of St. Lucie County, the Conservation Alliance of St. Lucie County, and CURE.

As a result of gathering and studying handouts presented at these first hearings, members of the League requested and received additional information from NRC, Florida Power and Light, and national organizations devoted to studying nuclear power. These materials were shared with the Conservation Alliance and a new group of Martin and St. Lucie County residents called Citizens United Against a Radioactive Environment, or CURE.

SLD-P-1 And let me insert here that I probably agree with practically all of the positive statements that were made by various people who spoke before me today, that Florida Power and Light has been a good neighbor, and they certainly contributed to the economy of the county, but today facts relevant to an extension of St. Lucie 1 and 2's operating licenses from thirty to fifty years –

## Appendix A

and by the way, I'm confused. Is it thirty years and if so, wouldn't that cut – wouldn't that be 2006, and I've heard the figure 2016 as the cutoff of the thirty year?

MR. CAMERON: Mike?

DR. MASNIK: Mike Masnik, NRC.

The – it's forty year – they have a forty year operating license, which will end on 2016. And what the licensee is requesting is an additional twenty years beyond 2016.

MS. WELLS: Okay. So I realize that some of the things I'm preparing to say are not accurate. I had been under the impression all these years that we had a thirty year operating license for these two plants. So you're going to have to subtract or add ten years here somewhere.

There are questions from those first hearings that I think need to be revisited. Please overlook or point out any misuse of terms in my comments. I've been out of this loop for quite a while.

I thank the Commission for its greatly expanded inclusion of questions and comments from the public, and hope you will be tolerant of those of us who are concerned citizens, but not as knowledgeable in the subject of nuclear power as we would like to be.

These are the questions that I have already given to your staff and which I hope you will be able to answer for us today.

SLD-P-2 1) Nuclear waste, particularly long lived spent fuel rods was to be removed within a reasonable time by the Federal Government, therefore, the subject of nuclear waste was labeled generic and could not be discussed in hearings for individual plants. However, instead of their being removed, more spent fuel rods than had been planned to be contained on site, have been placed closer together in the cooling pool than was originally thought to be prudent. Thirty years later, there is still no time set for removal of these wastes from our county.

Should setting a date for beginning to remove wastes be a condition for approval of adding twenty years of producing radioactive waste?

SLD-P-3 2) Citizens were told that an operating license would be limited to thirty years, because the metal end of their containers was expected to become brittle by forty years use and to crack.

What new studies prove otherwise?

SLD-P-4 3) First hearings predicted no population growth on Hutchinson Island near the plant. Population on Hutchinson Island was zero at the time. Now that many high rises, holding many people, exist south of the plant, what different plan for population evacuation in case of severe

accident should be established, or additional traffic lanes or people transporters for evacuation indicated by current and expected population?

- SLD-P-5 4) What class of individuals, what age, weight, sex or other attributes, working or living no more than seven miles from the plant, has been determined to be the most vulnerable to so-called normal plant radiation emissions?

What is the difference between the population living within a fifty mile radius of the site in the year 2000, and when the plants began operation, and what was the fifty mile radius population predicted for the year 2000, at the time of the first hearings?

They say you should never ask a question you don't know the answer to, and I don't know the answer to that when it's been a while and I know it's a matter of record, but I am raising it at this point.

- SLD-P-6 5) At the thirty year ago public hearings, concern was expressed over studies which showed the likelihood of a high concentration of radioactive iodine in the milk of nursing mothers and in milk goats living close to the plant, along Indian River Drive. Goats were said to have seven times the concentration of that of milk cows.

Have new studies been done to answer these concerns or have procedures been adopted for monitoring and/or notifying lactating women or goat farmers?

- SLD-P-7 6) Parents of St. Lucie County children, who seem to have a high incidence of tumors, were seeking answers a few years ago as to whether there was a nuclear plant emissions connection.

Have these questions been resolved?

- SLD-P-8 7) During the past thirty years, has new equipment for improving nuclear plant safety been developed, that might not have seemed cost effective to install at St. Lucie 1 or 2 for forty years operating period, but that should be installed for an additional twenty year operation?

- SLD-P-9 And the bottom question is, number 8), but perhaps most important, does the predicted long term terrorism threat that the Federal Government is planning for, and with nuclear power plants labeled one of the most likely targets and with St. Lucie Plants vulnerable from air, land and water, should St. Lucie 1 and 2 be closed as soon as possible, instead of given an extended life?

Thank-you.

## Appendix A

MR. CAMERON: And thank-you very much for those specific issues, Betty Lou. And the staff has informed me that they are going to look at them in the evaluation of comments, but also that they're prepared to talk to you about them after the meeting, if you have time.

All right. Thank-you.

Havert?

MR. FENN: Thank-you very much.

I do not represent any organization. I'm just a retired senior citizen who's interested in my community.

I have on occasion served in the public in St. Lucie County, first as a City Commission for Fort Pierce and then a County Commissioner for fourteen years, and now I'm in retirement. I still have the interests of St. Lucie County.

We've been, my family and I have been in St. Lucie County for over forty years period that Betty Lou Wells was speaking about a moment ago, we were involved in all of that.

SLD-Q-1 But we were convinced after a few years that the power plant, Florida Power and Light power plant was a good entity in our county. Yes, they have questions about the power plant and there will always be questions about the power plant. And certainly when we look on TV or we pick up the newspaper and see something that has happened at another power plant, such as the nuclear power plant here, it does give rise to what might happen here.

But I do have a few things that I would like to say relative to why I think the power plant renewal effort should be given. I'm not a scientific engineer, so I'm not going to get into all of these other things some of the people can get into.

Since we are all aware of why we are here, and I hope not be redundant in repeating all of that, but some of the good things that you've said, I'm saying I give my support to.

SLD-Q-2 The – first of all, the importance of the plant to the community. Now, yes, we know that St. Lucie County is one of the fastest growing counties in the State of Florida and maybe the nation, now that we have entities coming in that are supplying jobs and, of course, the Florida Power and Light Company is employing something in the neighborhood of eight hundred to nine hundred people.

SLD-Q-3 I want to stop and have you to recognize that the plant does provide, as far as I'm concerned, a safe, clean – safe and clean electricity. I want you to know that we – that there are other sources of electricity in this area, one being the Fort Pierce Utilities Authority Electric Plant, the

other being over on the West Coast of Florida, and there are some others, and I will not belabor those. But what I'm saying in the – wherever we go, we're going to need electricity. It's one of the things we, we say now we cannot do without. Before we had it, we didn't know that.

SLD-Q-4 I understand that the FP&L plant is among the lowest cost producers of electricity and that is good, because when the rate for electricity goes up too high, then we will suffer. I would like for the St. Lucie Plant to keep electric bills low.

SLD-Q-6 It is my understanding that for more than one reason, that the power plant is here. Someone was seeking a better way to provide electricity, other than the coal and the oil that we were living on at one time. And as a member of this community, I would like to see the power plant continue to be a part of our future. The location of the plant, we cannot do anything about that. I think now that we're in a position that we could stop the increased number of units at the plant, but so far as doing something about the plants that are already there, I don't believe we will be able to that.

SLD-Q-7 It has been a good neighbor. I have personally been involved with some of these products that the nuclear plant was involved in.

And you think in terms that someone mentioned a moment ago, about the Little League baseball teams, yes. You forgot to mention one, the Pop Warner Football League, too. They were involved in that. And we did have Mr. Anderson to mention the South County Regional Sports Complex, which they participated in; the United Way and some of the others that have been mentioned.

But I want you to know from my standpoint, that they, that the power plant and its employees have been a good neighbor for us, for me, and as I said, I've been here over forty years.

SLD-Q-8 Moving right along here, I would like to say that if you cannot live within the realm of this facility, not knowing what is to happen, we just pray to God that nothing ever happens. I have been told by some authoritative sources that the power plant workers are very dedicated persons and well trained. I'm going to live on that fact.

They have from time to time had electric emergency drills, so that if something is to happen, at least we'll have some direction, somewhere to go. Hopefully, as I said, that God forbid or something happening, but I can see now the people over in the central part of the , Wachula, you know, Avon Park, Okeechobee and the rest of them, yes, they could look up and see a whole lot of people coming, but I pray to God that that will not happen.

SLD-Q-9 And certainly I don't think any of us want to turn to fossil fuel. I don't believe we do, because you know the pollution we talked about that we do not want, that's what we will find.

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SLD-Q-10 So in my conclusion, I think this nuclear power plant is the best thing for our community environment, as some of you all have been saying. And that as far as I know, it has been a good neighbor for the last twenty-five years. And I will support the renewal of the license for the St. Lucie Nuclear Power Plant.

Thank-you.

MR. CAMERON: Okay, thank-you, Mr. Fenn.

Next, we're going to go to Mark Oncavage, then Lloyd Brumfield, then Jane Rowley and Doug Anderson.

MR. ONCAVAGE: Thank-you for the opportunity to speak. My name is Mark Oncavage.

SLD-R-1 At the scoping meeting here in Port St. Lucie on April 3rd, I raised eight public safety issues that needed to be included in the Draft Environmental Impact Statement and not even one of those safety issues are in this draft study. Apparently some individuals of the NRC have great difficulty relating safety and public concerns to their Environmental Impact Statement.

Also, I would like someone from the Office of the General Counsel to explain to me exactly which provisions of the National Environmental Policy Act enable the NRC staff to ignore the tremendously dangerous issues that I raised at the scoping meeting. No matter. There are forces at work here well beyond the control of the Nuclear Regulatory Commission and the nuclear industry.

2002 was a bad year. Nuclear industry scandals broke out worldwide. British Nuclear Fuels Limited is a privately run company that's owned by the British Government. They reprocess spent fuel into plutonium and uranium to fuel reactors. They have a sixty billion dollar liability for the nuclear waste and contamination problems that they've created. They're begging the British Government for money, because technically, they're bankrupt. Their liabilities far exceed their assets.

This company sold a load of reprocessed fuel to Japan. Japan found the fuel to be defective and demanded that the Brits take it back. On its way back, New Zealand and Caribbean Prime Ministers told the ships to stay out of their waters because of the dangers of terrorist attacks, contamination and sinkings.

Meanwhile, the Irish and Norwegian Governments are complaining to the European Union that radioactive wastes from this company's reprocessing plant are contaminating their national waters and an accident could kill many of their citizens.



The British Government recently deregulated their electricity market. They set up a private company called British Energy and sold it sixteen of the best reactors that they had. Since started deregulation, wholesale electricity prices have dropped thirty percent and now there's a twenty-two percent over capacity in the system.

British Energy is bankrupt. They're losing seven and a half million dollars week selling nuclear generated electricity. The government floated them a six hundred million dollar loan. British Energy said not enough, so the government raised it to one billion dollars due on November 30th, which was three days ago. British Energy said no, so the due date was moved to March 9th, 2003.

British Energy also asked for an additional three hundred million dollars every year to cover its waste and contamination problems. The company's capitalization value has dropped ninety-two percent since it was privatized in 1996. Obviously it's looking for some new culpable investors.

The German Government has promised to close down all their nineteen reactors by the year 2020. the Germans are struggling with the problem of storing high level wastes for the next few million years. They said they're going to put it deep below the water table.

The United States, at Yucca Mountain is planning to store their high level wastes above the water table. The Germans said they're not going to put it in an earthquake zone or a volcano zone. Yucca Mountain, our proposed repository, is in an earthquake zone and a volcano zone. Do the German scientists know something that we don't?

The Swedish Government has promised to close down all their nuclear power reactors. The Russian Government is down to its last reprocessing plant. It's the Chelyabinsk region of the Ural Mountains. This plan has suffered three catastrophic nuclear accidents and this Chelyabinsk region is considered to be the most contaminated place on earth, which includes the Chernobyl accident area. This plant lacks money as an endanger of precipitating a fourth catastrophic accident, when its liquid waste impoundment area bursts its banks, this would destroy the Pechora River all the way down to the Arctic Ocean.

The French Government is heavily into nuclear electricity. A poll completed this past September by the French Union for electricity, shows that sixty-one percent of the French people polled, said that they do not favor nuclear electricity, and sixty-two percent of the people said they would pay higher rates, up to ten percent more, to abandon nuclear electricity altogether.

The Japanese nuclear utilities are being rocked by their biggest nuclear power scandal ever. It seems they've been falsifying safety inspections for the past twelve years and their reactor binding is riddled with cracks. They've closed down twelve plants and have finally sent in some honest inspectors. One of the ways the Japanese Government responded to this crisis, was to hand the names of the whistle blowers over to the utilities.

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Because of the safety in corporate government scandal, the Japanese are getting cold feet about their plutonium fuel program, in which they buy a reprocessed plutonium fuel from British Nuclear Fuels Limited. This British reprocessor, with its sixty billion dollars liability in wastes and contamination, its defective fuel and its impending loss of the Japanese fuel contract, still managed to find one million dollars to lobby the Bush administration this election cycle.

SLD-R-2 These international affairs show that nuclear electricity is too dangerous, too expensive, and too unreliable to have a meaningful future. Now, let's look at the United States.

We all should know that there has not been a new order for a nuclear reactor since Three Mile Island Number 2 destroyed itself in 1979. Three Mile Island Number 2 cost seven hundred million dollars to build, but it was only three months old when the accident occurred. It incurred 973 million dollars in cleanup costs and will incur another 433 million dollars in retirement costs. The utility also lost 425 million dollars when it canceled another plant that it was building. That's about two and a half billion dollars up in smoke. The canceled plant was one of ninety-seven plants that were canceled from this era.

Another debacle was the Shoreham plant on Long Island outside New York City. The plant was built for five billion dollars and never produced a single watt of electricity. It was deemed too dangerous to operate, since the vast number of people living nearby could not be evacuated in an accident. The State of New York bought in from Long Island Light Company just to tear it down.

Washington Public Power Supply System wanted to build five reactors. When the cost estimates reached 24 billion dollars, it defaulted on 2 1/4 billion dollars of municipal bonds, the largest municipal bond default in history. Is there any question why the investment houses on Wall Street refuse to finance nuclear power plants?

Florida Power and Light recently purchased a controlling interest in Seabrook Number 1. They paid about fifteen cents on a dollar of the original plant cost of six billion dollars.

Pilgrim Reactor in Boston sold for a reported 50 million dollars. Three Mile Island Unit 1, the undamaged one, sold for a reported 100 million dollars, but the fuel at the plant was valued at 77 million dollars, so the plant was only worth 23 million dollars, less than ten cents on a dollar. This sounds like an industry in deep despair, because these are speculative prices.

SLD-R-3 In March of 2001, cracks started being seen around the control rod drive mechanisms at the top of some reactor pressure vessels. The NRC knew it had problems with cracks, with boric acid oozing out and with corrosion. Instead of calling for immediate safety inspections, it delayed the inspections order until December 31st.

One troublesome reactor, Davis Besse, near Toledo, Ohio, wanted more delays. So rather than impede plant revenues, the NRC delayed the safety inspections again. When the inspection was finally done in March of this past year, a hole about as big as a football, was discovered in the reactor lid. Only a thin piece of stainless steel cladding kept the reactor contents from blowing out the corrosion hole. That whole affair was mismanaged by the NRC, who truly endangered the public by putting utility revenues before safety.

SLD-R-4 The nuclear industry may point to the congressional designation of Yucca Mountain as the repository site for high level waste as a victory. The costs for this facility will be staggering. Here's a quotation from Congresswoman Shelley Berkley, speaking before the House of Representatives, and I quote:

"The projected cost of this boondoggle is anywhere from 56 billion dollars to 309 billion dollars. The Nuclear Waste Fund has 11 billion dollars. How are we going to pay for this, raise taxes, dip into the Social Security Trust Fund? And once Yucca Mountain is full, then what do we do? After spending hundreds of billions of dollars, we will still be exactly where we are today."

Thank-you for your time.

MR. CAMERON: Thank-you for that perspective, Mark.

We're next going to Mr. Brumfield.

MR. BRUMFIELD: Lloyd Brumfield. That's really a hard act to follow.

I'd say my name's Lloyd Brumfield but right now it's really Ebenezer Scrooge. And then I'd say I'm really Jekyll and Hyde, especially when it comes to energy and electricity, nuclear energy. And I say to myself, you know, I'm not really the average person. I'm different than the average person. I think on this subject, I'm more average than the average.

Nuclear energy, even any kind of electric power today, is an emotional thing with me. I mean I finally will admit that. I was a teenage soldier, who went into Japan as an occupation troop, rather than an invasion troop, because of the A bombs. And that time I'm, I'm really – you know, after that, I panicked for the A bomb. Nuclear fission. And then when, early '50's, when the Soviet Union had got it, I got shaky. Then, when it started advertising that nuclear power would be too cheap to meet her, and it took one up again, far as I can tell, it's probably the most expensive of all power.

But let me talk about these split personalities or multiple personalities of mine. Anytime I can drive by a power plant, I no longer look at it as an economic, or a practical, or comfort of living, even though I really get aggravated when I can't turn on the light, run my computer, use my drill,

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I want to use electricity. But when I go by a power plant, nuclear power plant, I get the willies a little bit, just looking at it. Maybe that's not the way it ought to be, but that's the way it is.

SLD-S-1 But what about these coal fire plants? Well, I've got a real problem there. I came from the coal mine country. Members of my family today are in coal mines. I have a nephew that's in management in a coal mine. And yet coal, from all indications, is the cause of much of the pollution around the United States in power plants and factories. Gas is a little bit – petroleum is a little bit better. Not as much as it claim, and gas probably is still a little bit better, but they're all fuels that pollute badly.

SLD-S-2 And what am I saying? You know, I really wish that nuclear power could work, but I don't believe it's working, for the very reasons that I get the willies when I drive by the power plant over on Hutchinson Island. And I hear people say, gosh, that's a bad looking thing to me.

And then when I drive by a coal fire plant, I think one of the very dozens down in Riviera Beach or somewhere, we, we've got a problem. I'm talking to you about the industry altogether.

SLD-S-3 Now I have one real problem with this power plant, as I do with any. As I understand it, the spent fuel from day one is still there, in the water or sump, and that's bothered me even before September the 11th.

SLD-S-4 And I do know that Yucca Mountain is a national political problem. But what even worries me today and I said it earlier, I've lost a lot of confidence in Federal agencies monitoring and policing. And the trend in Washington today is you do less of it, considerably less.

SLD-S-5 Most of the people here today are technicians, engineers, people who have been involved in it. But I still think the average citizen is as paranoid as I am. We want the electricity. We don't like the pollution and the nuclear power plants scare us. And you folks that have all of this know-how probably can help us. But I still say what I said earlier, I notice you've got a little bit of conservation as a last item on your handout. Just a little bit, some after-thought. I'd really like to see you move it up to the first item.

Thank-you.

MR. CAMERON: Okay, thank-you, Mr. Brumfield.

Could we have Jane Rowley, and then we'll go to Doug Anderson.

MS. ROWLEY: Well, I'm last, but not least, 'cause Doug Anderson went first.

MR. CAMERON: We're going to do this all again?

MS. ROWLEY: That's it. See that? No, I can't do that. I have a board meeting to go tonight.

MR. CAMERON: Okay.

MS. ROWLEY: I am Jane Rowley. Whoops, excuse me. I really didn't – I don't think I need a microphone.

(Laughter.)

MS. ROWLEY: My husband told me that he can hear me in a room with three hundred people and I'm whispering, so it's a real problem in my life.

I'm Jane Rowley and I'm the Director of Community Relations for St. Lucie West Development Corporation. We're developers in St. Lucie County and throughout the State of Florida.

My remarks are simple. I'm a lay person. I pull the switch and I want my lights to go on, I want my computer to go on, and I want my well water to go on. I've been a resident of the City of Port St. Lucie for twenty-five years. I'm a former City Councilwoman for the City of Port St. Lucie. Very active in the community.

SLD-T-1 I can't worry about what's going to happen all over the world, all over the United States, but I  
SLD-T-2 know FP&L here and our power plant, they look after our safety. They're good community partners, very active. Their employees are very active. Their management is very active. They've been involved in so many aspects of St. Lucie County and the counties around us. They're good community partners.

I feel it's very important that they approve the operating license for the St. Lucie Power Plant.

Thank-you very much.

MR. CAMERON: Okay, thank-you, Jane.

And I think Jane is correct. She is the last speaker today.

And I'm going to turn this over to John Tappert in a minute to just close this off for this afternoon session, but I just want to remind people that we do have a lot of NRC staff here, a lot of experts who are helping us with this project. Take some time to talk to them after the meeting. We do have a representative of our Office of General Counsel here, as well as regional staff.

And one person I did want to recognize, because of him – NRC's presence the community and at a particular plant is Thierry Ross, who's our senior resident here at St. Lucie and lives in the community, and looks after NRC's responsibilities on a day to day basis at the plant.

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And, John, do you want to say some final words?

MR. TAPPERT: I just want to thank everyone for coming out and taking time out of their day to come out here today.

Chip does these meetings for us all over the country and this may be the most comments we've ever gotten at one of these forums. So we appreciate your participation and I would encourage you to talk to one of the people with a name tag if you'd like to, if you have some more questions regarding the relicensing.

And thanks for coming out again.

(Whereupon, at 4:30 o'clock, p.m., the public meeting was adjourned.)

**Transcript of the Evening Public Meeting on December 3, 2002, in Port St. Lucie, Florida**

[Introduction, Mr. Cameron]

[Presentation, Mr. Dudley]

[Presentation, Dr. Masnik]

[Presentation, Ms. Hickey]

[Presentation, Dr. Masnik]

MR. CAMERON: Okay, thank-you, Mike.

We're going to start off the public comment segment of the meeting by hearing from Florida Power and Light, and I'd like to ask Don Jernigan to come up. Don is the site vice-president at St. Lucie. And then Tom Abbatiello is going to come up and talk to us, and Tom is the environmental lead on the license renewal application.

Don?

MR. JERNIGAN: Thanks, and good evening. And again, thank-you, Mr. Cameron.

My name is Don Jernigan. I'm the vice-president of Florida Power and Light Company, St. Lucie nuclear power plant. I appreciate this opportunity to speak to you today about Florida Power and Light's application for renewal of the St. Lucie operating licenses, and assisting me tonight is Tom Abbatiello, who is our license renewal project environmental lead, who will also address more specifically some of the findings contained in the Draft Supplement Environmental Impact Statement.

I'd also like to thank the Nuclear Regulatory Commission for arranging and holding this meeting today.

SLD-U-1 FPL strongly supports the openness of this process, and in fact during the last two years we have been involved in dialogue with the community surrounding the St. Lucie plant. In fact, we have met with more than one thousand home owners, community groups and government officials.

Our purpose was to simply share information about license renewal and plant operations. We believe that the community interest and the priorities should be incorporated not only into our license renewal at the St. Lucie plant, but also into our overall plant operations.

Community input is an integral part of a license renewal process. The application that we prepared consists of two parts, as discussed earlier, a safety analysis and an environmental report.

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The application has been open for public review for some time and the NRC has in fact requested comments and received comments from interested parties.

Just as the process has been open in reviewing the environmental aspects of license renewal, the safety analysis is also following a parallel path. There are open public meetings and the NRC is currently going through an intensive review of plant systems to ensure safe operation of the plant for an additional twenty years.

A public meeting on the scoping of the NRC's environmental review over license renewal application was held here last April in this very room.

Today's meeting continues that open process of seeking public input on license renewal, and we welcome this opportunity to gain additional community input on the environmental aspects of our license renewal.

I want to thank the members of the community that are represented here today for taking time out of your busy schedule to share your views and ideas of this draft report with the NRC. They're very important. And we appreciate the support that has been provided to us by the local communities.

I'd also like to thank the NRC staff and members of the National Laboratory Review Team for their work in preparing a Supplement Environmental Impact Statement for St. Lucie license renewal.

SLD-U-2 I believe that the report reflects a comprehensive assessment of the environmental impacts of license renewal. And as vice-president of St. Lucie, I want to state that my first and my primary focus is the health and safety of my family, my St. Lucie employees and this community, and their well-being comes before anything else.

SLD-U-3 When I look at the evidence that is presented in this Supplemental Environmental Impact Statement and the other license renewal documents, I am assured of the plant's safety and the positive impact on our environment. I believe that the case for continued operation of the St. Lucie plant is strong.

Let me address four areas. I want to talk about our performance, the economics of St. Lucie electricity, our environmental stewardship and our community presence.

SLD-U-4 The first thing I want to talk about is that the performance of our plant is top notch, thanks to our employees, many of whom are actually here in this audience tonight to support this very important process. It is their time, their effort, and their dedication that have resulted in making the St. Lucie plant consistently recognized as one of the safest and one of the most reliable and one of the most efficient plants in the United States.



It is our employees who have worked diligently through effective maintenance programs to sustain this option for continued plant operation well beyond the forty year license period.

Not only does the Nuclear Regulatory Commission monitor our performance, but there are other independent agencies who also agree that our plant operations are safe and that they have no adverse impact on the surrounding community. This includes the State of Florida's Department of Health, which conducts monitoring and sampling of the areas surrounding the St. Lucie plant.

SLD-U-5 Another important factor to consider in this process is our ability to help meet Florida's energy needs. As we have talked about here today, Florida's electric growth is averaging two percent a year. The St. Lucie power plant can help sustain the economic growth of our and maintain our current quality of life. This plant is strategically located in the FPL generating system.

SLD-U-6 The St. Lucie plant is among the lowest cost producers of electricity in the FPL system. So that helps keeps electric bills low, and that's good news for our customers.

SLD-U-7 From an environmental standpoint the St. Lucie plant remains a guardian of our natural resources. Our outstanding sea turtle programs have been recognized throughout the . In fact, the Governor has recognized the St. Lucie plant for this environmental stewardship this year.

SLD-U-8 In addition, we continue to produce clean electricity without air pollution or greenhouse gasses.

SLD-U-9 Finally, what does the St. Lucie plant mean to our community? So we asked our neighbors and they told us that we are an important economic factor in this community, one that they want to see remain as a viable contributor, payroll for around eight hundred employees, tax dollars, property taxes, purchases, and the contributions to local United Way agencies help in this area.

SLD-U-10 But the most important part, more than the economics, is the role that our employees play in this local community. Our employees are active in their churches, in Scout organizations, in PTA's, Little Leagues, Pop Warner football leagues, and even in local government.

And as a testimony to our community role, many members of the local community have spoken to us in support of the St. Lucie plant, not only this afternoon, but also last April during a public scoping meeting on the NRC's environmental review of our license renewal application.

In summary, I believe that renewal of the licenses of FPL St. Lucie nuclear power plant is in the best interest of our community in continuing to provide safe, clean, reliable and low cost electricity to our customers.

I would like to ask that our license renewal project environment lead Tom Abbatiello provide some additional details on FPL's license renewal efforts and comments on the Draft Supplemental Environmental Impact Statement.

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Tom?

MR. ABBATIELLO: Thanks, Don.

Good evening everyone. It's an honor to be here today to share my thoughts with you about the Supplemental Environmental Impact Statement for the St. Lucie license renewal.

As Don said, my name is Tom Abbatiello and I am the environmental lead for the St. Lucie license renewal project.

SLD-V-1 The Supplemental Environmental Impact Statement for the St. Lucie license renewal provides a thorough examination of the ninety-two environmental issues addressed in the regulations. This very broad approach has been thoughtfully designed and is intended to cover the wide spectrum of issues that might be raised by members of the public or governmental review agencies.

SLD-V-2 The Supplemental Environmental Impact Statement concludes that the environmental impacts from operating St. Lucie for an additional twenty years would be small. This conclusion is based on detailed analysis of impact areas.

I agree with this conclusion. In fact, it is the same conclusion that was made in FPL's environmental report which we prepared as a part of our application.

SLD-V-3 But another reason I believe that St. Lucie should operate for an additional twenty years is to be able to continue the award winning conservation work that was initiated almost twenty years ago. FPL is proud of the work we do, preserve and protect the environment. We believe in our responsibility to operate in harmony with the environment. St. Lucie's unique location successfully combines modern technology with a strong commitment to the environment.

As Don alluded to in his talk, on October 8th of this year, Governor Bush and the Florida Cabinet presented FPL with a 2002 council for sustainable Florida environmental award. This award, which was on display in the foyer, recognizes FPL's program at the St. Lucie plant for the preservation and education of endangered sea turtles. The sea turtle protection and preservation program will continue during the license extension period.

SLD-V-4 The renewal of the St. Lucie licenses is important in meeting the energy needs of South Florida, and as was previously mentioned, we are growing at about two percent a year and electricity consumed per customer is also increasing. Because of this increasing demand, FPL must plan and provide power plants to assure ample supply of electricity, and to that end, a robust network of generation is best sustained by the use of diverse fuels.

The renewal of the St. Lucie operating licenses permits FPL to continue to provide over 1700 megawatts of environmentally clean and low cost generating capacity, free from dependence on foreign oil.

SLD-V-5 The St. Lucie employees want to remain a part of this community. As your neighbors, safe and reliable operation of the St. Lucie nuclear plant is our top priority. We believe license renewal makes good business sense for both FPL and its customers, and in light of the current situation in the world, we also believe it is the right thing to do for our country.

Thank-you.

MR. CAMERON: Thank-you very much, Tom, and thank-you, Don.

We're going to go to Mr. Vince Barry now, who I believe is from Wonderful Wednesday.

Vince?

MR. BARRY: Good evening.

My name is Vincent Barry. My wife Lorraine and I have lived in Port St. Lucie for fourteen years, moving here from Lafayette, Indiana.

SLD-W-1 During that time we have relied on Florida Power and Light and the St. Lucie Nuclear Plant to supply us with low cost, safe and reliable electricity. They have never failed to fulfill that responsibility.

Over the same period, I have checked the cost of electricity with our growing children living in several other States, and have confirmed that Florida Power and Light and the St. Lucie Nuclear Plant does indeed have economical rates.

SLD-W-2 We also have enjoyed great credits, by participating in the Florida Power and Light on-call program. With this program our water heater and our air conditioning system are wired such, that during peak loads Florida Power and Light can remotely disrupt our service for short periods of time. To date, if they have activated the system, we are unaware of it, and it has caused us no inconvenience.

SLD-W-3 With regard to safety and reliability, long before coming to Florida I was aware of the excellent reputation in quality that Florida Power and Light enjoyed and of the high standards they employed in their facilities.

I have long known of the stringent quality and safety systems demanded and employed by Florida Power and Light. However, it was not until my wife and I became involved in Vicky

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Spencer's energy encounters and the Wonderful Wednesday program she administers, did we realize that those stringent standards were ratcheted up tenfold at the St. Lucie Nuclear Plant.

I learned about the safety and the back-up systems, about the detailed procedures for every process that must be followed and how the operators are trained and retrained to follow these quality and safety procedures to the letter without deviation.

SLD-W-4 There is no question in my mind that safety is the top priority at the St. Lucie nuclear Plant and their safety record bears this out.

SLD-W-5 In addition to being a reliable supplier of safe, low cost electricity, the St. Lucie Nuclear Plant is a good neighbor, contributing aggressively to our local community, both economically and with countless civic activities. The plant and its employees are involved in everything, from Little League, to United Way, to Habitat for Humanity, and impacts this community with more than eighty million dollars annually.

SLD-W-7 I recently became aware of the splendid programs that the St. Lucie plant Energy Encounters Program conducts. These programs offer hands-on science programs for school, offering free three day work shops to teachers for teaching skills and training credits, free science field trips for elementary and middle school children, as well as continually donating computers and supplies to the local schools.

SLD-W-8 Adding to their economic and civic achievements, the St. Lucie nuclear plant has always maintained a strong commitment to the environment. Their emphasis on the South Florida Echo System have resulted in designing and maintaining a facility that compliments a friendly relationship of the two.

SLD-W-9 Through the twenty-five year existence of the plant, the State of Florida has monitored the environmental conditions around the St. Lucie nuclear plant. They have continually found both the air and the water surrounding the plant meets their standards and those of the Federal Government.

SLD-W-10 In conclusion, the twenty-five year history of the St. Lucie Nuclear Plant has been excellent for the community, for the environment and its wildlife, and for the people. We have got something very good here and when you have something good you stick with it.

Florida Power and Light and the St. Lucie Nuclear Plant have more than proved they are worthy to have their license renewed.

I thank you for allowing me to voice my support for the St. Lucie Nuclear Plant license renewal and for sharing with you my views for that support.

MR. CAMERON: Thank-you very much, Mr. Barry.

Next we're going to go to Mr. Larry Bullington.

MR. BULLINGTON: Thank- you. I'd just have some comments that I'd like to make.

First of all, thank-you to the NRC findings. I'm a health physics technician at St. Lucie since all the way back January 10th of '83. I have some years of experience.

But those that I'm sitting around, or the reason I'm here tonight, because they represent IBEW, and present, Rick Curtis, and these are my Union brothers.

SLD-X-1 As has been stated before, the Boy Scouts, Big Brothers, Hospice, United Way, is contributing from these fellows and also many – in the area, many hours put together for these gentlemen.

So I thank you. The ladies and gentlemen here are part of the neighborhood of St. Lucie, Martin, Okeechobee and Indian County.

MR. CAMERON: Thank-you, Larry.

Next we're going to go to Karen Knapp, United Way.

MS. KNAPP: Good evening.

My name is Karen Knapp and I'm the President of the United Way of St. Lucie County, and it is my pleasure to speak on behalf of the Florida Power and Light Company, and the people it employs, and their relationship with the United Way.

The United Way is the leader in charitable giving. Over the past forty years the local United Way has allocated millions of dollars to give to health and human service organizations to help people in need right here in our community.

In order for us to be successful in accomplishing our goals, we need helping hands, volunteers and the generosity of contributors. Volunteers govern the United Way. They help raise needed funds, and the volunteers review all requests for funds and make financial – or final decisions on where the dollars will do the most good.

SLD-Y-1 Our volunteers are a vital resource to our organization. For many years now the folks at FP&L have played and continue to play an important role in the operation of our United Way. Year after year Florida Power and Light, and the IBEW Local 627 supports us by giving of their time and energy.

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FP&L allows their employees to help us in so many ways. They sit on governing boards of the United Way. They allow their employees to become loan executives. They chair our United Way campaigns. Volunteers help us not only with their own campaign inside the nuclear plant, but they also help us conduct many outside throughout the community.

These volunteers go above and beyond and they give from the heart. They have never said no to a request for help from the United Way, whether it be constructive huge goal signs in the community or sitting on decision-making panels. The company and its employees are dedicated to improving the quality of life for those less fortunate in our community.

They have proven themselves to be good citizens of this community, the true friend to United Way and an asset to our entire community and I would like just to take this opportunity to thank Mr. Jernigan and the employees here present for all that they do for the United Way.

MR. CAMERON: Okay, thank-you, Karen.

I believe that's the last speaker that we had signed up.

Before we close, does anybody else have anything to say or any issues we can clear up for you? Any questions?

Yes, sir?

And just please give us your name for the transcript.

SLD-Z-1 MR. BOGACKI: My name is Charles Bogacki, and just to stay on the topic of environmental impact, I just want to let you know the posted radioactive material settlement pond that is on the FP&L site outside of the radiation control area – and FP&L is doing a great job on the St. Lucie site – but I would like to see the settlement pond that is open to all the wildlife, have some attention to make this settlement pond de-posted as radioactive material area that is open to the wildlife, and adhere to the environmental issues that may impact that.

MR. CAMERON: Okay. Thank-you, and if the NRC staff needs to clarify anything about that, they'll talk to you after the meeting, okay, just to make sure that we understand everything that you're saying on that.

Anybody else have a question or comment that they want to make before we close for tonight?

(No response.)

MR. CAMERON: I would just thank all of you for taking the time to be with us tonight and giving us your comments.

Anybody?

(No response.)

MR. CAMERON: All right. I'm going to ask John Tappert, who's our senior person here, to just close the meeting for us.

John?

MR. TAPPERT: Thanks again for coming. We appreciate all the comments that you gave us. The NRC staff will remain after the meeting if you have any additional questions or comments.

Thank-you.

(Whereupon, at 8:55 o'clock, p.m., the public meeting was adjourned.)

## A.6 Letters and E-Mails Received on the Draft SEIS

Doris Mendiola - [Fwd: Fwd: NY TIMES--Regulators kept damaged A-Plant Open Because of Cost To Owner] Page 1

SLD-AA

**From:** Betty Lou Wells <blouwells@earthlink.net>  
**To:** Bill Nelson <senator@billnelson.senate.gov>, Bob Graham <"bob graham"@graham.senate.gov>, Mark Foley <mark.foley@mail.house.gov>, Lisa Kaul <lkaul@envector.com>, Jim Reeder <jreeder@pbpost.com>, Anthony Westbury <anthony.westbury@scripps.com>, Michael Goforth <tribedit@fptribune.com>, Richard Wells <rwells78@comcast.net>, Bob Bangert <Bangert@digital.net>, Sharon Beal <"sbeal9999"@bellsouth.net>, Ellen Mancini <ellen\_mancini@hotmail.com>, Jeb Bush <jeb@jeb.org>, Masnick <StLucieDSEIS@nrc.gov>, Lacey Vitunac <waltnlacev@aol.com>  
**Date:** 1/4/03 12:02PM  
**Subject:** [Fwd: Fwd: NY TIMES--Regulators kept damaged A-Plant Open Because of Cost To Owner]

Oh my God!

This is the reason to carefully, double carefully consider extending operating licenses of St. Lucie 1 and 2 (and all other plants) as we shall undoubtedly continue to find problems of rust, embrittlement, etc. in old plants. Wonder what the industry thinks stories and occurrences/events of this sort do to "public confidence"?

SLD-AA-1

RECEIVED  
 1/13 AM 9:44  
 NRC and Director  
 Branch  
 1/13/03

11/21/02  
 67 FR 66674  
 (1)

*Template = ADM-013*

*F-RTDS = ADM-03  
 Add = M. Masnik (MTH2)*



**From:** <Waltnlacev@aol.com>  
**To:** <blouwells@earthlink.net>  
**Date:** 1/4/03 11:05AM  
**Subject:** Fwd: NY TIMES--Regulators kept damaged A-Plant Open Because of Cost To Owner

RECEIVED  
07 JUL 13 AM 9:46  
Risks and Directives  
Dental  
(1000)

**From:** Lloyd Brumfield <lloydb4@yahoo.com>  
**To:** Lloyd Brumfield <lloydb4@yahoo.com>  
**Date:** 1/4/03 5:19AM  
**Subject:** NY TIMES--Regulators kept damaged A-Plant Open Because of Cost To Owner

Regulators' Wariness Kept a Damaged A-Plant Open  
By MATTHEW L. WALD

ASHINGTON, Jan. 3 — Three months before workers refueling an Ohio nuclear reactor discovered last year that its lid had rusted nearly all the way through, the staff of the Nuclear Regulatory Commission drafted an order to close it for inspection.

But the order was never issued, because the staff doubted its authority to close the plant, did not want to impose unnecessary costs on the owner and was reluctant to give the industry a black eye, according to an internal commission report released today.

The report, by the commission's inspector general, concluded that the staff had been too hesitant and that a policy adopted by the N.R.C. in the mid-1990's to take costs into account when setting regulatory requirements was in conflict with the commission's goal of maintaining reasonable assurance of public safety.

But the basic problem, the report said, was the staff's assumption about who had the burden of proof — the commission or a plant's operator — when safety was in question.

The commission "appears to have informally established an unreasonably high burden of requiring" of itself "absolute proof of a safety problem, versus lack of reasonable assurance of maintaining public health and safety," said the inspector general, Hubert T. Bell.

The report, dated Dec. 30, was issued today after an account about it appeared this morning in the Cleveland daily The Plain Dealer. Its sharp criticism of the commission's staff concerned the belated nature of the shutdown of the Davis-Besse reactor, near Toledo, last year.

Other reactors of the same design had been found to have cracks in parts attached to the lid, and the commission wanted all such plants inspected by Dec. 31, 2001. The operators of the Davis-Besse plant wanted to wait until March 2002, when the reactor was scheduled to be shut anyway for refueling.

Rules and Directives  
Enacted  
1/13/03 11:41:44  
RECEIVED

When the plant finally closed, on a compromise date in February 2002, engineers and workers were shocked to find that cracks of the kind the commission staff had suspected there had let acidic water leak onto the head, where it had eaten away a 70-pound chunk of steel six inches thick.

Only a layer of stainless steel about a quarter-inch thick had prevented the cooling water from spewing out of the vessel head, in a leak that could have proved catastrophic. The corrosion was the most extensive ever found at an American nuclear plant.

Three months earlier, in November 2001, the commission's staff had drafted a shutdown order. But some staff members were not sure they had the authority to issue it, the inspector general's report found. Others thought that it might not be defensible in court, and that such an order would "destabilize confidence" in the industry.

William M. Beecher, director of the commission's public affairs office, said the N.R.C. received the report on Thursday and had not yet determined how it would respond. But, he said, "the N.R.C. has the unquestionable and unquestioned authority to shut down a plant if it concludes that public health and safety is potentially in jeopardy."

Such shutdown orders were common in the 1970's and 1980's, when reactors were newer and operating problems were first occurring. They are rarer now. In the mid-1990's, the commission adopted a policy called "risk-informed regulation," in which it pays more careful attention to the costs it imposes on plant operators, comparing those costs with the amount of risk reduction they provide.

But Mr. Beecher said that while the commission and its staff do take costs into account, "the primary and overarching requirement, concern, standard, for the N.R.C. is public health and safety."

"Anything else," he said, "is secondary or tertiary."

As for the concern about having to defend such an order in court, the new report determined that the fear of a lawsuit had been unfounded. The president of the FirstEnergy Nuclear Operating Company, which runs Davis-Besse, told the inspector general that no formal shutdown order would have been required; he would have closed the plant had the commission simply telephoned and asked him to do so, he said.

The inspector general undertook his investigation at the request of the Union of Concerned Scientists, a

safety group that is generally highly critical of nuclear operations.

David Lochbaum, a nuclear engineer with the group, said in an interview that shutting down early for a special inspection would not have been an undue burden on Davis-Besse. Other reactors suspected of cracks in the lids did just that, Mr. Lochbaum said.

World Business Briefing | Asia: Japan: Power Plant Shut (October 29, 2002)

Campaigning About A-Plants, But Without Actual Power (August 21, 2002) \$

Fuel Rods and Brass Tacks; Reality Overtakes Rhetoric in Nuclear Power Debate (May 26, 2002) \$

Report Faults Fiscal Review of Nuclear Plants (December 25, 2001)

Find more results for Atomic Energy and Regulation and Deregulation of Industry .

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<http://mailplus.yahoo.com>

SLD-AB

**From:** <Gregory\_Hogue@ios.doi.gov>  
**To:** <StLucieDSEIS@nrc.gov>  
**Date:** 1/6/03 9:13AM  
**Subject:** NUREG-1437, Supplemental 11 [Watchdog: Virus checked]

Attached for your consideration are comments to the subject DEIS.

Gregory Hogue  
Regional Environmental Officer  
404-331-4524

11/01/02  
67266674  
(2)

(See attached file: nureg1437.wpd)

PROCEIVED  
JAN 13 AM 9:47  
Rites and Directives  
Branch  
NRC

Template = ADM-013

E-CPDS = ADM-03  
all = M.M. BDIK (MTH2)

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JAN 13 AM 9:47  
Rules and Directives  
Branch  
1/13/03

ER 02/1011

January 6, 2003

Chief, Rules Review and Directives Branch  
U.S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555

RE: NUREG-1437, Supplement 11, Generic Environmental Impact Statement for License  
Renewal of Nuclear Plants

The Department of the Interior has reviewed the referenced document. We have no comments to  
provide for your consideration. If you should have any questions, I can be reached at  
404-331-4524.

Sincerely,

Gregory Hogue  
Regional Environmental Officer

cc:  
OEPC, WASO  
FWS, R4

SLD-AB-1

SLD-AC

**From:** Betty Lou Wells <blouwells@earthlink.net>  
**To:** <StLucieDSEIS@nrc.gov>, Bob Graham <"bob graham"@graham.senate.gov>, Jim Reeder <jreeder@pbpost.com>, Judy James <jjhacienda@aol.com>, Marti Reno-Curtis <renocurtis@aol.com>  
**Date:** 1/10/03 11:22PM  
**Subject:** Comment I

*11/01/02*  
*67 FR 66674*  
*(3)*

Below is copy of comments made December 3, 2002 in Port St. Lucie at the public hearing before the NRC. I was not answered at the conclusion of my remarks but was told someone would answer at the end of the meeting.

My name is Betty Lou Wells. I reside at 1124 Jasmine Avenue in Ft. Pierce, St. Lucie County, Florida 34982.

Over thirty years ago, I was a member of three community organizations which attended NRC public hearings on FP&Ls request to build a nuclear power plant now known as St. Lucie 1 and followed by St. Lucie 2. The three organizations were the League of Women Voters

of St. Lucie County, the Conservation Alliance of St. Lucie County, and C.U.R.E.

As a result of gathering and studying handouts presented at those first hearings, members of the League requested and received additional information from NRC, FP&L, and national organizations devoted to studying nuclear power. These materials were shared with the Conservation Alliance and a new group of Martin and St. Lucie County residents called Citizens United Against a Radioactive Environment, or C.U.R.E.

RECEIVED  
 JUN 13 AM 9:47  
 Rules and Directives  
 Branch  
 USNRC

Today facts relevant to an extension of St. Lucie 1 and 2's license from 40 to 60 years logically focus on new information. However, there are questions from those first hearings that I think need to be revisited. Please overlook or point out any misuse of terms. I've been out of this "loop" for quite a while. I thank the Commission for its greatly expanded inclusion of questions and comments from the public

and hope you will be tolerant of those of us who are concerned citizens but nowhere near as expert on the subject of nuclear power as we would like to be. These are the questions I have already given to your staff and which I hope you will be able to answer for us today:

I. Nuclear waste, particularly long-lived spent fuel rods, was to be removed within a reasonable time by the federal government. Therefore, the subject of nuclear waste was labeled generic and could not be discussed at hearings for individual plants. However, instead of their being removed more spent fuel rods than had been planned to be contained on site have been placed closer together in the the cooling pool than was originally thought to be prudent. Thirty years later, there is still no time set for removal of these wastes from our county. Should setting a date for beginning to remove wastes be a condition for

SLD-AC-2

*Template = ADM-013*

*E-RTDS = ADM03*  
*Call = M. HASNIK (MTR)*

approval of adding twenty years of producing radioactive wastes?

SLD-AC-3

2. Citizens were told that an operating license would be limited to 40 years because the metal in nuclear containers was expected to become brittle by longer use and to crack. What new studies prove otherwise?

SLD-AC-4

3. First hearings predicted no population growth on Hutchinson Island near the plant. Population on South Hutchinson Island was zero at the time. Now that many high rises holding many people exist south of the plants, what different plan for population evacuation in case of accident has been established? Are additional traffic lanes or people transporters for evacuation indicated by current and expected population? Note: since this hearing, the 100,000th resident has been added to the City of Port St. Lucie, which at the time of the plant's original licensing had a population of about 350 altogether.

SLD-AC-5

4. What class of individual of what age, weight, sex, or other attributes, working or living no more than seven miles from the plants has been determined to be the most vulnerable to solaced normal radiation exposure? What is the difference between the population living within a 50 mile radius of the site in the year 2000 and when the plants began operation, and what was the population predicted for the year 2000 at the time of the first hearings?

SLD-AC-6

5. At the thirty year ago public hearings, concern was expressed over studies which showed the likelihood of a high concentration of radioactive iodine in the milk of nursing mothers and in milk goats living close to the plants along Indian River Drive. Goats were said to have seven times the concentration rate of that of milk cows. Have new studies been done to answer those concerns or to monitor and notify lactating women or goat farmers?

SLD-AC-7

6. Parents of St. Lucie County children who seemed to have a high incidence of tumors were seeking answers as to whether there was a nuclear plant emissions connection. Have these questions been resolved?

SLD-AC-8

7. During the past thirty years has new equipment for improving nuclear plants' safety been developed that might not have seemed cost effective to install at St. Lucie 1 or 2 for the 40 year operating period but should be installed for an additional twenty year operation?

SLD-AC-9

8. Finally, but perhaps most important, does the predicted long term terrorism threat that the federal government is planning for and with nuclear power plants labeled one of the most likely targets, should St. Lucie 1 and 2 be closed as soon as possible instead of given an extended life?

At the end of the meeting I was told that questions 5 and 6 would be checked on and answered later. The other comments or questions were discussed but my notes indicate satisfactory answers were not forthcoming.



However, bearing on question 8, on January 8, 2003 I received from Senator Bob Graham a response to a letter I had written to him on October 17, 2002, regarding the possibility of attack on our plants from the air, enclosing a clipping regarding a rumor that a small plane had circled low over the plant site without being intercepted.

Senator Graham transmitted my letter and contents to NRC on October 31, 2002, and it was replied to by William D. Travers, Executive Director for Operations on December 16, 2002. His reply was thoughtful and clear. It stated that NRC requires plant construction to be able to withstand tornadoes, hurricanes, and earthquakes, and that it is felt that these design features would afford a "measure" of protection against deliberate airplane impacts. When St. Lucie 1 and 2 were built, no one was thinking of the need for protection against a deliberate airplane attack, and it doesn't seem we are sure now that the plants are redundantly safe from such. However, at this time, thinking the even more unthinkable, my concern is not for a Twin Towers type attack but for the dropping of a bomb onto the plants or the spent rod fuel assembly pools. Such an event would surely produce a catastrophic reaction. And while immediately after September 11, 2001, we were told that our plant would be guarded from the air by military planes, that plan was soon abandoned, and as the incident referred to above shows, the plants are unprotected from air, land, or sea missiles. Therefore, my objection, voiced in number 8 above, remains and is even more strong since receiving Mr. Travers letter.

Would you be so kind as to give him copy of this email? I have only his generic NRC land address.

And will you please answer the other seven points raised in my above statement.

Thank you.

Sincerely,

Betty Lou Wells

Appendix A

SLD-AD

**From:** <JHacienda@aol.com>  
**To:** <StLucieDSEIS@nrc.gov>  
**Date:** 1/11/03 6:52PM  
**Subject:** RE: St. Lucie Plant

11/01/02  
69 FR 66674  
(4)

Re: " St.Lucie-specific supplement to the Generic Environmental Impact Statement (GEIS) for License Renewal"

SLD-AD-1

Please do not extend the life of the St. Lucie nuclear plant. Residents of the area were told at site hearings that they were built to last 40 years. Why and how has that changed? The continuation of plants past their planned life-span increases the danger of accidents.

SLD-AD-2

My main opposition then and now to a nuclear plant is to the extremely toxic waste being produced by the plant without safe storage for it, which was promised to the residents at the time of siting.

Note: I represented the League of Women Voters in the state site hearings in St. Lucie County on nuclear power plant II.

Thank you for your time,

Judy James

RECEIVED  
JAN 13 AM 9:48  
Office and Directives  
Environ

Template = ADM-013

E-REIDS = ADM-03  
add = M. Manley (MTR)



Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

January 9, 2003

L-2003-005  
10 CFR 51  
10 CFR 54

Chief, Rules and Directives Branch  
U.S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, D.C. 20555-0001

11/01/02  
CFR 66674  
(5)

RECEIVED  
NOV 14 PM 2:54  
REGISTRATION DIVISION

Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Comments on Draft Supplemental Environmental Impact Statement for  
License Renewal of Nuclear Plants Supplement 11

SLD-AE

Florida Power & Light Company (FPL), the applicant for the renewal of operating licenses DPR-67 and NPF-16 for St. Lucie Nuclear Plant, Units 1 and 2 respectively, provides the following comments on the referenced Draft Supplement Environmental Impact Statement (DSEIS).

FPL agrees with the overall conclusions and proposed findings in the DSEIS. FPL offers the following comments in the Attachment to this letter. FPL urges the Commission to issue a final EIS addressing the environmental impacts of the proposed renewal of the St. Lucie Units 1 and 2 operating licenses as soon as possible.

Should you have any questions concerning FPL's comments, please contact S. T. Hale at (772) 467-7430.

We appreciate the opportunity to comment on the DSEIS.

Very truly yours,

D. E. Jernigan  
Vice President  
St. Lucie Plant

DEJ/STH/hlo  
Attachment

Attachment = ADM-013

F-RIDS = ADM-03  
Add = U. Masnik (MTH2)

an FPL Group company

**COMMENTS ON DRAFT GENERIC ENVIRONMENTAL IMPACT  
STATEMENT (NUREG 1437 SUPPLEMENT 11)  
ST. LUCIE UNITS 1 AND 2  
LICENSE RENEWAL APPLICATION**

	PAGE	LINE NUMBER	COMMENT
SLD-AE-1	xviii	26	Delete "and chronic effects from electromagnetic fields " Add period after "justice." FPL did not present an analysis of chronic effects from electromagnetic fields.
SLD-AE-2	1-07	28	Change the word "Westinghouse" to "Combustion Engineering "
SLD-AE-3	2-01	35	Change "Juniper" to "Jupiter."
SLD-AE-4	2-05	28, 31, 34	Change "Florida Aquifer" to "Floridan Aquifer."
SLD-AE-5	2-08	31-34	Clarify by including information that FPL has dredged the intake canal on several occasions, most recently in the fall of 2002. On one occasion, in the mid-1990's, the dewatered sediments were sold as clean fill.
SLD-AE-6	2-14	32	SEIS states, "The last 2.4 km (1.5 mi) of the right-of-way is shared with three other 230 kV lines..." should be corrected. There are four other 230 kV lines entering the Midway Substation.
SLD-AE-7	2-14	33	SEIS states "...total right-of-way width is approximately 1080 feet " Although there is a short section of North-South leg that is approximately 1080 ft., the majority of the right-of-way is approximately 800 feet.
SLD-AE-8	2-15	06	Correct spelling of "right-or-way" to "right-of-way."
SLD-AE-9	2-17	02	It is not clear that the site no longer has a package plant. Reword as follows: Period after "wastewater " Second sentence to read, "The treated wastewater was previously discharged to the discharge canal. Now the site sanitary wastewater is discharged to St. Lucie County's South Hutchinson Island Water Reclamation Facility for treatment."
SLD-AE-10	2-21	01	The conversion of 236,146 lb of bluefish should be corrected to 107,000 kg.
SLD-AE-11	2-22	31-32	Sentence should read, "The whales are listed as endangered by the Federal government and the State of Florida."
SLD-AE-12	2-28	02	"Habiats" should be corrected to "Habitats."
SLD-AE-13	2-32	27	This section, "Radiological Impacts" is not appropriate in this chapter. The conclusions regarding the effects and impacts of offsite emissions should be moved to the corresponding section in Chapter 4, Section 4.3.
SLD-AE-14	2-35	22 and 41	The "a" designation on the reference citation, U.S. Census Bureau 2000a, should be dropped as it is not consistent with that listed in the reference section.
SLD-AE-15	2-35	31-37	Note that the projected values for 2010 and 2020 are higher than that presented in ER and a different source is used. However, the growth rates are the same as presented in the ER for these years. In addition, the calculations for the annual growth rates appear to be incorrect. For Martin County the values should be 12.8, 5.8, 2.6, 2.0, and 1.7, respectively for the years presented in Table 2-7; similarly the values for St. Lucie County should be corrected to 7.1, 7.2, 2.8, 2.2, and 1.8.

	PAGE	LINE NUMBER	COMMENT
SLD-AE-16	2-36	24	The value given for the peak demand per day, 5.8 MGD is not consistent with that stated in the ER (5.4 MGD).
SLD-AE-17	2-37	9	Change "Solerno" to Salerno "
SLD-AE-18	2-37	20	Delete "and crosses I-95 near Ft. Pierce." Add new sentence "I-95 crosses to the west of the Florida Turnpike south of Stuart and crosses back to the east at Ft. Pierce."
SLD-AE-19	2-38	Table 2-9	Values presented in this table should be verified and corrected. Given the residential land use for St. Lucie County of 138 mi <sup>2</sup> is correct, the conversion to km <sup>2</sup> should be corrected from 97 to 357. The sum of the land use values for St. Lucie County in mi <sup>2</sup> should be corrected from 542 to 641. If correct, the percent of total values should be corrected accordingly.
SLD-AE-20	2-40	25	"are" should be "is "
SLD-AE-21	2-41	04	The value given for the population of Stuart, 14,633 is inconsistent with that stated in the ER (4,633). The number in the ER contained a typographical error and the value presented in the SEIS has been verified to be correct.
SLD-AE-22	2-41	05-07	Growth rates provided for St. Lucie and Martin counties (28% and 26%, respectively) are not consistent with values presented in Table 2-7. See earlier comment regarding corrections to this table. These growth rates should be corrected accordingly.
SLD-AE-23	2-41	37	The values for the agricultural land use for both St. Lucie and Martin County should be corrected in accordance with corrections made in Table 2-9.
SLD-AE-24	2-41	38	The reference for agricultural land use values should be corrected from Table 2-10 to Table 2-9.
SLD-AE-25	2-41	41	The number of farms in St. Lucie and Martin counties (805) is inconsistent with that presented in the ER (359). The value presented in the ER has been verified to be correct for the number of <u>farms that hire</u> and the number presented in the SEIS has been verified to be correct for the <u>total number of farms</u> . Relative to the discussion of migrant farm workers, it would be more appropriate to use the number of farms that hire.
SLD-AE-26	2-42	06	Reference citation USDA 2001a is inconsistent with that listed in the reference list Delete the "a" designation.
SLD-AE-27	2-42	24	Second column should be titled "Total Property Tax Levied for all Property in St. Lucie County."
SLD-AE-28	2-42	25-29	Property tax amounts paid to St. Lucie County for St. Lucie Units 1 and 2 for years 1996, 1998, and 1999 vary slightly from the dollar amounts presented in the ER. The amount in the ER for 2000 was an estimate and was reflective of the total FPL property tax for St. Lucie County. To clarify the record, the ER value for the 2000 taxes to be paid for St. Lucie 1 and 2 only would have been correctly stated as \$18.8 million. Also, in line 29, "\$18,888,240" should be corrected to "\$18,888,240 "

Appendix A

L-2003-005  
Attachment  
Page 3 of 7

	PAGE	LINE NUMBER	COMMENT
SLD-AE-29	2-42	25-29	The 1999 tax assessment for St. Lucie 1 and 2 (\$22,807,970) is 10.3% of the total property taxes (\$221,893,569) and the 2000 tax assessment for St. Lucie 1 and 2 (\$18,888,240) is 8.5% of total county property taxes (\$222,310,596). These results will change the average quoted on page 4-26 line 13. Correct table entries accordingly.
SLD-AE-30	2-42	Note (c)	Should read "State of Florida data on migrant farm workers were not available "
SLD-AE-31	2-43	17	"...Brighton Seminole, located about 76 km (47 mi) to the east of the St. Lucie plant..." should be corrected by changing the word "east" to "southwest."
SLD-AE-32	2-47	9-10	Change "before construction" to "before operation."
SLD-AE-33	4-02	09	"of" should be "to."
SLD-AE-34	4-02	26 and 32	Altered Salinity Gradients is applicable to plants discharging to estuarine systems. Given that St. Lucie discharges to an ocean environment, this issue is not applicable to St. Lucie. Eutrophication is an issue applicable to small stratified water bodies. Given that St. Lucie discharges to a large oceanic water body, this issue is not applicable to St. Lucie. These issues should be removed from this table and added to Appendix F.
SLD-AE-35	4-03	15	Delete this line. St. Lucie 1 & 2 use once-through cooling and the GEIS reference discussion relative to cooling system noise impacts is specific to cooling towers. It is incorrect to group the noise issue with the cooling system impacts. The GEIS addresses plant noise beyond that associated with the cooling system.
SLD-AE-36	4-05	37-38	"...and the ecological risk assessment study for the cooling canal system (Ecological Associates 2001)." The referenced study was a survey report not a risk assessment for the cooling canal system. Also cited on page 4-6, line 24.
SLD-AE-37	4-09	13-21	Delete these lines. See the comment above for page 4-03 line 15.
SLD-AE-38	4-12	39	"...impacts related to entrainment and no..." should be corrected to read "...impacts related to impingement...."
SLD-AE-39	4-13	13	Reference citation (USAEC 1973) is not consistent with that listed in the reference list and should be corrected to (AEC 1973).
SLD-AE-40	4-14 4-16	34 22-31	Delete these lines. GEIS Section 4.5.3 does not address on-site land use
SLD-AE-41	4-17	27	"licence" should be "license "
SLD-AE-42	4-28	16-20	The Florida State Historic Preservation Officer has stated that renewal of the operating licenses for St. Lucie Units 1 and 2 would not affect historic properties. Based on this finding, it is not clear why the DSEIS contains the wording at lines 16-20, particularly where no refurbishment activities will occur. This wording should be deleted.  The current Environmental Protection Plan addresses the performance of environmental evaluations. This statement bounds the requirements for environmental evaluations. The SEIS should not impose any new or additional environmental commitments.
SLD-AE-43	4-33	06	The conversion of 35.3 MGD should be corrected from $14.8 \times 10^4 \text{ m}^3/\text{d}$ to $1.34 \times 10^5 \text{ m}^3/\text{d}$ .

SLD-AE-44

PAGE	LINE NUMBER	COMMENT
4-33	1-22	<p>In this paragraph, the NRC addressed groundwater use conflicts (potable and service water; plants that use &gt; 379l/min [&gt;100gpm]) as an applicable Category 2 issue, citing the indirect withdrawal of groundwater at the St. Lucie site in excess of 100 gpm as the basis. This determination is not consistent with the scope of this issue as defined in the GEIS and codified by 10 CFR 51. NRC in GEIS Section 4.8.1, "Groundwater Use," states, "This impact could occur as a <u>direct</u> effect of pumping groundwater, ..." (emphasis added). Furthermore, the specific concern for this issue is that the cone of depression associated with direct pumping of groundwater onsite could potentially extend beyond the plant boundaries and impact offsite groundwater users. Section 4.8.1 of the GEIS limits the scope of this issue to the direct use of groundwater and acknowledges that the indirect use through municipal supply is not of concern. Therefore, analysis of this issue should not be expanded to include indirect use. Accordingly, this section should state that there are no Category 2 issues applicable to St. Lucie Units 1 and 2 during the license renewal term.</p> <p>The statement on line 2, "There are no Category 1 issues applicable to groundwater use and quality for St. Lucie Units 1 and 2 during the renewal term." is incorrect. The issue "Groundwater quality degradation (saltwater intrusion)" is a Category 1 issue that is applicable to St. Lucie NRC in GEIS Section 4.8.2.1 characterizes this issue as Category 1 and discusses the potential for indirect impacts of St. Lucie's use of municipal supply which uses groundwater as the source water. Consistent with other sections, the table presented in this section should identify this issue as an applicable Category 1 issue.</p> <p>The 10 percent threshold used in NRC's discussion (lines 4-6) is not correctly applied given the discussion is relative to the Category 2 issue of groundwater use conflicts. This threshold was specifically used by NRC in the GEIS for the impact significance of groundwater quality relative to saltwater intrusion (See GEIS Section 4.8.2.1). The GEIS does not provide such a threshold for evaluating impacts from the direct use of groundwater. This section should be revised to address the applicable Category 1 issues and state that there are no Category 2 issues applicable to St. Lucie Units 1 and 2.</p> <p>Accordingly Table 4-8 should be deleted and it should be noted that the GEIS section cited for the Category 2 issue listed in this table should only be Section 4.8.1.1. GEIS Section 4.8.2.1 addresses the category 1 issue regarding saltwater intrusion.</p>
4-35	37	Change the word "that" to "than" and strike the words "or equal to "
4-36	10	Strike the words "met or."
4-36	18	Change "are monitored" to "are normally monitored." This reflects those times when monitoring is not possible or required by license condition.

SLD-AE-45

SLD-AE-46

SLD-AE-47

SLD-AE-48

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SLD-AE-53

SLD-AE-54

SLD-AE-55

SLD-AE-56

SLD-AE-57

SLD-AE-58

SLD-AE-59

SLD-AE-60

SLD-AE-61

PAGE	LINE NUMBER	COMMENT
4-37	13	This discussion is not up to date. It does not consider the letter reprinted at page E-31, and does not consider FPL's letter to the Staff clarifying whether a consultation is required.  Add the following words following the sentence ending on line 13: "By letter dated August 23, 2002, the NRC Staff requested reinitiation of consultation with NMFS regarding the incidental capture of green and loggerhead turtles at St. Lucie Units 1 and 2. By letter dated September 20, 2002, FPL informed the NRC Staff that it would cooperate with the Staff's data request regarding the consultation process, but stated that there was no factual or legal basis for the NRC's reinitiation of consultation in this case."
4-40	06	"Informal consultation with the FWS was initiated by FPL in April 2001..." is not correct as only Federal agencies can initiate consultation. This sentence should be revised to read, "NRC initiated informal consultation in February 2002 with a request for information concerning which species are potentially..."
4-40	06	Reference citation FPL 2001b is not the correct correspondence discussed in this sentence.
4-44	01	"form" should be "from."
5-05	05	Change "safety analysis" to "safety assessment"
5-07	Table 5-3 Footnote (b)	Start the sentence, "The Unit 2 LOCA value, originally ..., was" The Unit 2 LOCA value needed correction and in turn effected a misstatement of the "Others" value.
5-09	11	Reference NRC 1988 is not provided in the reference list.
5-13	01,02	Change the word "account" to "compensate." Insert the word "apparent" before "non-conservatism." Delete the phrase, "This relatively small non-conservatism notwithstanding,". Begin last sentence with "The Staff considers..."
5-21	23 and 37	Reference citation NRC 1997a should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list.
5-23	03	Reference citation NRC 1997b should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list.
5-23	11	Reference citation NRC 1997a should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list.
5-24	37	Reference citation NRC 1997b should be corrected to NRC 1997d. The correct source is NUREG/BR-0184 which is listed as NRC 1997d in the reference list.
5-26	3 <sup>rd</sup> reference from bottom	The name is spelled " <u>Gleaves</u> ."
6-06	37	Add the following text after "nuclear waste: "Both the Senate and Congress subsequently voted to override a veto of the President's selection of the Yucca Mountain site by the Governor of the State of Nevada."



	PAGE	LINE NUMBER	COMMENT
SLD-AE-62	8-04	28	This sentence states that the volume of low-level radioactive waste could vary greatly depending on the length of time it {the reactor} operated. However, the NRC states in the GEIS (Section 7.3.2) that decommissioning waste volumes would be essentially the same for a plant operated for 40 years as for a plant operated 60 years. Resolve the apparent discrepancy by deleting the phrase "the length of time it operated."
SLD-AE-63	8-05	35	NUREG-0586 (NRC 1988) is cited in the text here, but not included in the reference list in Section 8.4.
SLD-AE-64	8-07	33	The statement is made that the land west of the intake canal and south of the transmission lines could not accommodate a coal or new nuclear unit, but "could potentially accommodate a completed natural gas combined cycle plant to replace St. Lucie Units 1 and 2." Several "obstacles" are mentioned, but one significant "obstacle" is omitted: the lack of an existing gas pipeline that could provide fuel to the site. This should be added to the other "obstacles" already listed.
SLD-AE-65	8-10	18	The "a" used on the reference citation "FPL 2001a" should be deleted, as this designation is not used in the reference list.
SLD-AE-66	8-11	03	Sentence beginning with "Annual coal consumption .." should be deleted as this information is given in the previous paragraph.
SLD-AE-67	8-11	17	"Spent selective catalytic reduction (SCR) catalyst" should be deleted from the list of wastes identified in this sentence since, as noted on page 8-17, line 21, spent SCR catalyst would not be disposed of onsite.
SLD-AE-68	8-13	07	For Coal-Fired New Generation – Environmental Justice was quoted in Table 8-2 as "Small" and "Small to Moderate" in Table 9-1.
SLD-AE-69	8-22	17, 18	For Natural Gas-Fired New Generation – Environmental Justice was quoted in Table 8-2 as "Small" and "Small to Moderate" in Table 9-1.
SLD-AE-70	8-23	25	NRC cites FPL's ER as the source in listing design assumptions for the gas-fired alternative, including use of low-sulfur number 2 fuel oil as backup fuel. Delete this design assumption from the list, since FPL did not assume use of fuel oil as a backup fuel in its ER.
SLD-AE-71	8-26	20	NRC estimates spent SCR catalyst generated from operation of the gas-fired alternative to be 31 cubic meters per year. The source for this estimate is not indicated, but in Section 8.2.2, Page 8-23, Lines 29-30, NRC indicates that, unless otherwise indicated, assumptions and numerical values used throughout this section are from the FPL ER. FPL did not quantify the amount of spent SCR catalyst in its ER. It would be appropriate for the NRC to provide a reference for this quantity.

SLD-AE-72

SLD-AE-73

SLD-AE-74

SLD-AE-75

SLD-AE-76

SLD-AE-77

SLD-AE-78

SLD-AE-79

SLD-AE-80

PAGE	LINE NUMBER	COMMENT
8-42	40-41	<p>The DSEIS makes the following statement in regard to additional DSM to help to address the capacity that would be lost if the OL's for the two St Lucie units are not extended: "While the DSM measures would have few environmental impacts, the operation of the new natural gas-fired plant would result in increased emissions (compared to the OL renewal alternative) and other environmental impacts."</p> <p>Delete the phrase, " While the DSM measures ... impacts," and replace with, "Additional DSM that replaces nuclear capacity, in part or in total, will result in FPL's existing fossil fuel units operating at higher capacity factors than they otherwise would, thus increasing total emissions from the FPL system."</p> <p>Start a new sentence, "In addition, the operation of a new gas-fired ...."</p>
9-05	28, 29	Delete the phrase "except for the SAMA identified above." Put a period after "warranted."
E-2	Table E-1	<p>Third entry (FWS and NMFS) – the FPL letters should not be referenced here. The letters from the FWS and NMFS providing the results of the consultation should be provided.</p> <p>The remarks for this entry should also be revised to discuss NRC's consultation versus the correspondence FPL had with the agency. It is incorrect to say that FPL initiated the consultation. If the FPL letters remain in the table, the second letter number should be corrected from PLL-LR-02-0054 to PSL-LR-0054.</p>
E-2	Table E-1	Fourth entry (U.S. Army Corps of Engineers) – the Authority information should be revised to read, "Rivers and Harbors Act (33 USC 403) and Clean Water Act (33 USC 1344).
E-3	Table E-1	Provide a note that the NPDES permit is the Industrial Wastewater Facility Permit. In Chapter 2 of the DSEIS it is mentioned several times as the Industrial Wastewater Permit. This would create a link for the reader.
E-4	Table E-1	<p>Updated information for these annual FWCC permits is as follows:</p> <ol style="list-style-type: none"> <li>1) 01S-018 has been replaced by 02R-018 and expires 6/30/2003</li> <li>2) TP#206 expires 1/31/2003</li> <li>3) TP#125 expires 1/31/2003</li> </ol> <p>Last entry – "next" should be corrected to "nest" in the Description column.</p>
E-5	Table E-1	<p>First entry – The updated information is:</p> <ol style="list-style-type: none"> <li>1) 56-01238-W expires 5/21/2009</li> </ol>
F-2	15-16	Groundwater quality degradation (saltwater intrusion) is an applicable issue to St. Lucie due to their indirect use of groundwater through the municipal supply for potable and service water. Therefore this issue should be deleted from the table and appropriately discussed in Section 4.5.
F-2	Table F-1	Groundwater use conflicts (potable and service water and dewatering); plants that use >100 gpm should be added to the table as not applicable because St. Lucie Units 1 and 2 do not withdraw groundwater.

SLD-AF

**From:** Mark Oncavage <oncavage@bellsouth.net>  
**To:** <StLucieDSEIS@nrc.gov>  
**Date:** 1/13/03 11:29AM  
**Subject:** Comments of Draft Report

Chief, Rules and Directives Branch January 13, 2003  
 Division of Administrative Services  
 U.S. Nuclear Regulatory Commission

Dear Sir:

On April 3, 2002 I presented oral comments, for the record, concerning scoping for an EIS supplement on extending the license of the St. Lucie nuclear plant. The public safety issues I presented were omitted by the NRC in publishing Supplement 11, Draft Report, NUREG-1437. I have simplified the 8 issues that were embedded in the oral comments. These issues, concerning public health and safety, need to be explained in substantial detail in the Final Report of Supplement 11, NUREG 1437 to be in compliance with the National Environmental Policy Act (NEPA), as amended.

1. The EIS needs to state the fatalities, the injuries, the economic loss, and the scope of evacuation as consequences resulting from a worst case zirconium fire in a spent fuel pool at the St. Lucie nuclear plant.

2. The EIS needs to state the probability of a zirconium fire occurring in a spent fuel pool at the St. Lucie nuclear plant. The probability calculation needs to combine accidental fires, sabotage fires, and terrorist caused fires.

3. The EIS needs to state the calculated time sequences leading to a zirconium fire as a result of sabotage or terrorist attacks.

4. The EIS needs to state the consequences, the recalculated probability, and the recalculated time sequences of a zirconium fire at St. Lucie to assist emergency preparedness administrators in creating a new evacuation plan and to assist members of the public in creating their own personal emergency plans.

5. The EIS needs to state what mitigation, if any, is available once a zirconium fire at the St. Lucie nuclear plant has started.

6. The EIS needs to state the results and conclusions of all the research in the NRC's possession related to extinguishing a zirconium fire in a spent fuel pool of a nuclear plant.

7. The EIS needs to state the probability and consequences of a zirconium fire in a spent fuel pool at St. Lucie, igniting a zirconium fire in the adjacent spent fuel pool.

8. The EIS needs to state the results of the research program concerning St. Lucie, safety issues, and terrorism that was mentioned by NRC official, Jim Medoff, at the ACRS meeting in Florida City, FL on March 13, 2002.

Respectfully Submitted

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 Branch  
 (11/13/03)*

*E-EIS = ADH-03  
 Ad = H. Masnik (MTM2)*

Appendix A

Mark P. Oncavage

Frank Leslie

To: StLucieDSEIS@nrc.gov
Subject: Personal Comments on St. Lucie Relicensing Plant Specific GEIS, Supplement 11

Chief
Rules and Directives Branch
Mailstop T-6D 59
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

Handwritten notes: 1/01/02, 67 FR 66674, (7)

Dear Sir:

Following are my personal comments on Supplement 11:

Comments on St. Lucie Nuclear Power Plant Relicensing GEIS, Supplement 11
From Frank R. Leslie, 1017 Glenham Dr., NE, Palm Bay FL 32905, 321-768-6629,
f.leslie@ieee.org on 12/02/2002

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SLD-AG-1

General comments: Use of SMALL, MODERATE, and LARGE impact on the environment is a good approach to focus on the effects rather than various quantities.

SLD-AG-2

More emphasis upon the risk calculations is desirable to clarify the probability of possible events in the context of everyday risks such as driving to work. The public perceives risks to be far worse when they don't choose those risks. As examples, a mountain climber may rail against the risk of a city street air pollutant or second-hand smoke, or joggers may choose to run alone and unarmed in mountain-lion country.

SLD-AG-3

Plant safety/security comments: Discuss and clarify recent USA Today stories about a SANDIA report discussing offsite radiation release plumes of 500 miles extent rather than the 50 mile limit used in the Supplement. The radiation levels at varying distances must have great meaning. While the St. Lucie plant has clearing of a potential plume release by westerly weather winds, it also has easterly to southeasterly sea breeze winds that could send a release plume across the state towards Orlando or Tampa.

SLD-AG-4

Since much has been made by antinuclear activists of the potential for zirconium spent-fuel fires and release dispersion, a detailed study of possibilities of those fires (a fault tree analysis) should be made in a way as to fully inform the public as to how such risks are computed. Loss of pool coolant and terrorist actions should be considered.

SLD-AG-5

Video surveillance systems using software intruder-path detection and alarming should be employed to supplement the security forces alertness. These cameras may be especially useful in detection of boats and swimmers approaching the Lagoon side of the plant. Electric-field detection fencing is a first level of defense. Ultrasonic sensors in the barge channels are necessary to detect underwater swimmers. Consultations with the Sandia Intrusion Detection Lab and Special Forces teams would help determine means of attack and defense. The plant security force members periodically should consider how they would attack the plant with their level of knowledge, and then help design the means to prevent such attacks. Do not downplay obscure or low-probability attacks.

SLD-AG-6

The following comments primarily address the alternative energy aspects of relicensing considerations.

Section 8 Alternatives to Nuclear Relicensing

- Fossil fuel plants produce more air/water pollution than nuclear plants, but few are as concerned about non-nuclear pollution.
Wind and solar-electric plants would require extensive land areas due to the low energy density of the sources. Neither appears to be a viable replacement for large base-load plants.
Hydropower has limited resource in Florida and environmental blocking objections, while ocean wave and tide energy appears to be uneconomic and environmentally problematic

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Appendix A

within the next twenty years.

· Oil is too precious a resource to burn in fixed locations for heat. Transportation and chemical use must take priority.

· Biomass combustion produces pollution and CO2, which many believe contributes to global warming (climate change). Municipal stream waste (MSW) contains heavy metals such as lead, mercury, and zinc that should not be incinerated.

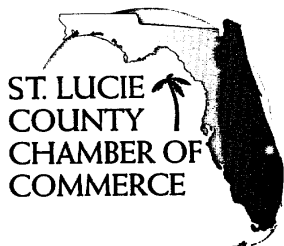
SLD-AG-7 · Catastrophic extremes (site failure core meltdowns) may have lower computed impact costs than meteor strikes or tsunamis; Should we take action to preclude those and similar events?

SLD-AG-8 Summary of comments: Table 9-1 displays the SMALL impact of relicensing versus the other replacement power possibilities that range from MODERATE to LARGE impacts. License renewal thus appears to be the best action now, and in perhaps twenty years, other energy alternatives may be better suited and economic.

Frank R. Leslie

Disclaimer: These are personal comments and do not necessarily represent the positions of Florida Institute of Technology.

---  
|-----|  
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December 6, 2002

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Dr. Michael T. Masnick  
Mail Stop O-12D3  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20277-2904

Re: License Renewal for the St. Lucie Nuclear Power Plant

Dear Dr. Masnick:

I am writing to you on behalf of the St. Lucie County Chamber of Commerce. The St. Lucie County Chamber of Commerce, representing approximately 1,100 local businesses, supports the renewal of the license for the St. Lucie Nuclear Power Plant.

The St. Lucie Plant is an important member of our business community. They contribute to many local non-profits, such as the St. Lucie County Education Foundation, The United Way, The St. Lucie County Marine Center and the Economic Development Council of St. Lucie County. The St. Lucie Plant also has a major economic impact on our area, both directly as one of the County's largest sources of property taxes, and indirectly through the jobs that the plant provides. The St. Lucie Plant currently has 800 full-time employees, and these are good jobs for our community. I am told that the economic impact of the plant on our local community is \$80,000,000.00 annually.

However, the most important economic impact of the St. Lucie Plant is the inexpensive consistent power which it provides to our area. In the past, businesses took this power for granted, however, with the recent events in California, and the potential for disruptions to our oil supply caused by events in the Middle East, we are especially lucky to have the St. Lucie Nuclear Power Plant in our County.

Best regards,

W. Lee Dobbins

Template = ADM-013

E-RIDS = ADU-03  
Add = M. Masnick (MTM2)

SLD-AH

SLD-AH-1

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Appendix A

Dr. Michael T. Masnick  
December 6, 2002  
Page 2

WLD:rl

cc: Rachel Scott  
Al Rivett

F0011862v





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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64FR 6667A  
(6)

SLD-AI

**RE: EPA Review and Comments on  
Draft Generic Supplemental Environmental Impact Statement (DGSEIS)  
License Renewal of Nuclear Plants, Supplement 11  
Regarding St. Lucie Units 1 & 2  
CEQ No. 020443**

Dear Chief:

Thank you for submitting the above-referenced document. EPA Region 4 reviewed the Draft Generic Supplemental EIS (DGSEIS) pursuant to Section 309 of the Clean Air Act and Section 102 (2)(C) of the National Environmental Policy Act (NEPA). The purpose of this letter is to provide the Nuclear Regulatory Commission (NRC) with EPA's comments regarding potential impacts of the proposed renewal of the St. Lucie Units 1 & 2 Operating Licenses (OLs).

Florida Power and Light Company (FPL) submitted an application to renew the Operating Licenses (OLs) for St. Lucie Units 1 & 2 for an additional 20 years. St. Lucie is a nuclear powered, electric generating facility that has process water discharges regulated by the National Pollutant Discharge Elimination System (NPDES) program. The renewal of the OLs would allow for power generation capability beyond the current term, providing for future system generating needs.

The proposed action would include use and continued maintenance of existing facilities and transmission lines, and would not result in new construction or disturbance. According to the information in the DGSEIS, the consequences of renewing the OLs would result in fewer environmental impacts than the consequences of alternative methods of power generation.

The plant uses once-through cooling water from the Atlantic Ocean to remove waste heat from the facility. Ocean water is drawn through three offshore intake structures into an intake canal that leads to the plant. The heated water is discharged back to the Atlantic Ocean through offshore diffusers. The Atlantic Ocean in the vicinity of the plant is considered part of the aquatic environment of interest.

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*ERFDS = ADM-03  
add - M. MASHNIK (MTH2)*

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## Appendix A

Based on review of the subject Generic DGSEIS, a rating of EC-1 has been assigned to this proposed action. That is, there are environmental concerns on some aspects of the proposed project. While we recognize that continued use and maintenance of the existing facility would result in fewer impacts than the feasible alternatives for generating fuel, we have environmental concerns about some impacts associated with the facility.

Specifically, clarification is needed regarding impact avoidance and mitigation measures for the Big Mud Creek ecosystem, and herbicides used in the transmission right-of-way. Consultations with the appropriate agencies regarding threatened and endangered species will need to continue throughout the operating life of the facility, in order to avoid and mitigate impacts.

Thank you for the opportunity to comment on this document. We look forward to reviewing the Final Generic SEIS. If we can be of further assistance, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,



Heinz J. Mueller, Chief  
Office of Environmental Assessment

**EPA Review and Comments on  
Draft Generic Environmental Impact Statement  
License Renewal of Nuclear Plants, Supplement 5  
Regarding Turkey Point Units 3 and 4 (DGSEIS)**

**Alternatives:**

SLDAI-1 As described in the DGSEIS, the environmental impacts of continuing or renewing the license for St. Lucie Units 1 and 2 has fewer environmental impacts than the alternatives (Chapter 8 and Table 9-1). The alternatives described in the document include using fossil fuel power generation processes, constructing a new nuclear facility, using alternative fuel generation methods, purchasing power from other sources, or implementing the No-Action Alternative.

SLD-AI-2 EPA appreciates the utility-sponsored conservation methods outlined in Section 8.2.5.11 to help users implement measures to reduce power consumption.

**Threatened and Endangered Species:**

SLD-AI-3 We note that federally-protected species are listed for the area by the U.S. Fish and Wildlife Service (FWS). EPA principally defers to the FWS regarding endangered species assessments and encourages NPS to continue coordination with the FWS as appropriate.

SLD-AI-4 A March 6, 2002 letter on page E-8 of the document states that the Florida Fish and Wildlife Conservation Commission (FWC) planned to review Big Mud Creek to determine whether additional manatee protection measures were warranted. FWC stated that they wanted to formalize a protocol with Florida Power & Light Company for the capture and recovery of manatees entrained in the power plant's intake canal. The DGSEIS discusses past incidents when manatees entered the intake canal on infrequent occasions and were rescued. As a follow-up to this issue, the Final GSEIS should include updated information regarding measures to protect the manatee in the vicinity of St. Lucie, and the outcome of any pertinent studies regarding Big Mud Creek.

The document discusses the presence of protected sea turtles in the area, and your coordination with the National Marine Fisheries Service regarding incidental take. We note the Incidental Take Statement (ITS), which contained mandatory terms and conditions to minimize the effects of this take. The measures taken to avoid and mitigate sea turtle entrapment in the intake canal were discussed in the DGSEIS.

SLD-AI-5 Due to the presence of threatened and endangered species in the area, consultations with the appropriate agencies will need to continue throughout the operating life of the facility, in order to avoid and mitigate impacts.

**Fish:**

SLD-AI-6 We note the concerns regarding anoxic conditions at the bottom of Big Mud Creek, where the water depth exceeds 40 feet. Fish kills have been reported in that area, and the Florida Department of Environmental Protection recommended that the creek be filled to a more environmentally-friendly depth (page E-8 of the document).

Clarification should be provided in the Final GSEIS regarding the origin of the anoxic conditions mentioned, and the planned or implemented measures to avoid impacts to fish in the area.

## Appendix A

### **Herbicides:**

SLD-AI-7 According to Page 2-15, Power Transmission System, herbicides are used in the transmission right-of-way. The Final GSEIS should specify the types and quantities of herbicides applied, and the alternatives to spraying plants with defoliant. Similarly, the FGSEIS should include details regarding broadcast applications for weed control (types, frequency, quantities, alternatives to chemical applications, etc.).

SLD-AI-8 Applying herbicides and weed killers can impact surface and groundwater resources. This  
SLD-AI-9 is of concern at this site, since groundwater is generally very shallow there. Applications of herbicides in and around residential areas could potentially impact sensitive populations. In addition, some herbicides may also cause potential adverse impacts to wildlife.

### **Water Quality:**

SLD-AI-10 Section 2.2.3 briefly discusses the NPDES status of the facility. Requirements for the National Pollutant Discharge Elimination System (NPDES) and Industrial Wastewater Facility permits should be outlined in the Final GSEIS.

## **Appendix B**

### **Contributors to the Supplement**

## Appendix B

### Contributors to the Supplement

The overall responsibility for the preparation of this supplement was assigned to the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission (NRC). The statement was prepared by members of the Office of Nuclear Reactor Regulation with assistance from other NRC organizations and the Pacific Northwest National Laboratory, Los Alamos National Laboratory, Energy Research Incorporated, and the Information Systems Laboratory.

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John A. Jaksch		Socioeconomics, Environmental Justice
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Duane A. Neitzel		Aquatic Ecology
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Cary Counts		Technical Editor
Susan Ennor		Technical Editor
Kevin Kautzky		Technical Editor
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Janet Tarantino		Technical Editor
Jim Weber		Technical Editor
Terri B. Miley		Peer Reviewer
Dillard B. Shipler		Peer Reviewer
Debora Schulz		Document Design/Production
Lisa Smith		Document Design/Production
Rose Urbina		Document Design/Production
Barbara Wilson		Document Design/Production

## Appendix B

<b>Name</b>	<b>Affiliation</b>	<b>Function or Expertise</b>
<b>LOS ALAMOS NATIONAL LABORATORY<sup>(b)</sup></b>		
Danny Katzman		Water Use and Water Quality, Hydrology
Bruce Masse		Historic and Archaeological Resources
<b>ENERGY RESEARCH INCORPORATED</b>		
Mohsen Khatib-Rahbar		Severe Accident Mitigation Alternatives
<b>INFORMATION SYSTEMS LABORATORY</b>		
Kim Green		Severe Accident Mitigation Alternatives
Jim Meyer		Severe Accident Mitigation Alternatives
(a) Pacific Northwest National Laboratory is operated for the U.S. Department of Energy by Battelle Memorial Institute. (b) Los Alamos National Laboratory is operated for the U.S. Department of Energy by the University of California.		

## **Appendix C**

### **Chronology of NRC Staff Environmental Review Correspondence Related to Florida Power and Light Company's Application for License Renewal of St. Lucie Units 1 and 2**



## Appendix C

### Chronology of NRC Staff Environmental Review Correspondence Related to Florida Power and Light Company's Application for License Renewal of St. Lucie Units 1 and 2

This appendix contains a chronological listing of correspondence between the U.S. Nuclear Regulatory Commission (NRC) and Florida Power and Light (FPL) and other correspondence related to the NRC staff's environmental review, under 10 CFR Part 51, of FPL's application for renewal of the St. Lucie, Units 1 and 2, operating licenses. All documents, with the exception of those containing proprietary information, have been placed in the Commission's Public Document Room, at One White Flint North, 11555 Rockville Pike (first floor), Rockville, MD, and are available electronically from the Public Electronic Reading Room found on the Internet at the following web address: <http://www.nrc.gov/reading-rm.html>. From this site, the public can gain access to the NRC's Agencywide Document Access and Management Systems (ADAMS), which provides text and image files of NRC's public documents in the Publicly Available Records (PARS) component of ADAMS. The ADAMS accession numbers for each document are included below.

- November 29, 2001 Letter from Mr. J. A. Stall, Florida Power and Light Company (FPL) to U.S. Nuclear Regulatory Commission (NRC), submitting the application for the renewal of the operating licenses for St. Lucie Units 1 and 2 (Accession No. ML013400155)
- December 19, 2001 Letter from NRC to Mr. J. A. Stall, FPL, concerning the receipt and availability of the license renewal application for St. Lucie Units 1 and 2 (Accession No. ML013520570)
- December 31, 2001 NRC press release announcing the availability of license renewal application for St. Lucie Units 1 and 2 (Accession No. ML020070030)
- January 29, 2002 NRC press release announcing the opportunity to request a hearing for license renewal application for St. Lucie Units 1 and 2 (Accession No. ML020300074)
- February 18, 2002 Letter from D. E. Jernigan, FPL, to NRC regarding the distribution of additional copies of application for renewed operating licenses for St. Lucie Units 1 and 2 (Accession No. ML020520515)

## Appendix C

- February 21, 2002 Letter from NRC to Dr. Rudolph Widman, Indian River Community College Library, concerning the maintenance of reference material for the St. Lucie license renewal application (Accession No. ML020560548)
- February 27, 2002 Letter to Mr. Jay Slack, U.S. Fish and Wildlife Service from NRC, requesting list of protected species within the area under evaluation for the St. Lucie plant license renewal (Accession No. ML020570547)
- March 15, 2002 Response from Ms. Linda S. Ferrell, U.S. Fish and Wildlife Service, including a list of protected species within the area under evaluation for the St. Lucie plant license renewal (Accession No. ML020880223)
- March 19, 2002 NRC press release, public meetings on April 3, 2002, to discuss environmental scoping process for St. Lucie Plant Units 1 and 2, license renewal application (Accession No. ML020850293)
- March 19, 2002 Letter from Dr. William Vogel, Superintendent of The School Board of St. Lucie County, providing scoping comments on the St. Lucie plant license renewal (Accession No. ML021010247)
- March 25, 2002 Letter from Emilie L. Julian, Assistant for Rulemakings and Adjudications, to Joseph Kaplan acknowledging receipt of general comments for Turkey Point and St. Lucie Power Plants, with attached letter from Mr. Kaplan received on February 1, 2002 (Accession No. ML020860403)
- March 26, 2002 Scoping comment letter from Mr. Jack T. Southard, Public Safety Director, and Mr. Charles T. Christopher, Radiological Coordinator, of St. Lucie County Department of Public Safety (Accession No. ML020880213)
- April 3, 2002 Comments from Mr. James P. Vojcsik, Executive Director, United Way of Martin County, providing scoping comments for St. Lucie license renewal (Accession No. ML021160494)
- April 24, 2002 E-mail from Mr. Mark Oncavage providing scoping comments on St. Lucie license renewal (Accession No. ML021260597)
- April 29, 2002 E-mail from Mr. Sidney M. Ziring providing scoping comments regarding St. Lucie Units 1 and 2 license renewal (Accession No. ML021260528)

April 29, 2002	E-mail providing scoping comments concerning St. Lucie license renewal from Ms. Sara Case, Energy Issues Chair, Broward Sierra Club (Accession No. ML021260520)
April 30, 2002	E-mail from Mr. Stanley Smilan providing scoping comments in regard to St. Lucie license renewal (Accession No. ML021260502)
April 30, 2002	Scoping comment letter from Mr. Stanley Smilan on St. Lucie license renewal (Accession No. ML021260542)
May 1, 2002	Letter from Mr. Jim Woodfin providing scoping comments concerning St. Lucie license renewal (Accession No. ML021330006)
May 4, 2002	E-mail from Mr. Jim Woodfin providing scoping comments on St. Lucie license renewal (Accession No. ML021330078)
May 4, 2002	E-mail from Mr. Mark Oncavage providing scoping comments regarding St. Lucie license renewal (Accession No. ML021330074)
May 5, 2002	E-mail from Mr. Frank R. Leslie providing scoping comments in reference to St. Lucie license renewal (Accession No. ML021330038)
March 6, 2002	Letter from the State of Florida, Department of Community Affairs, to Mr. D. E. Jernigan of FPL, regarding the St. Lucie Nuclear Power Station's Environmental Report; includes comments from Florida Fish and Wildlife Conservation Commission, Florida Department of Environmental Protection, and Florida Department of Transportation (Accession No. ML030450339)
May 7, 2002	Summary of April 3, 2002, public scoping meetings for the St. Lucie Plant Units 1 and 2 license renewal application (Package No. ML021160348; (Meeting Summary, ML021300604; afternoon meeting transcript, Accession No. ML021160237; and evening meeting transcript, Accession No. ML021160265))
May 7, 2002	Letter from NRC to Mr. J. A. Stall, request for additional information related to the staff's review of severe accident mitigation alternatives for St. Lucie Units 1 and 2 (Accession No. ML021340363)

## Appendix C

- May 20, 2002 Fax letter from Mr. Mark Oncavage, providing scoping comments pertaining to St. Lucie license renewal (Accession No. ML021490145)
- June 3, 2002 NRC letter to Dr. Joseph E. Powers, National Marine Fisheries Service, regarding the "Environmental Review on Florida Power and Light Company's Application for a 20-Year Renewal of the Operating Licenses for St. Lucie Units 1 and 2" (Accession No. ML021570345)
- June 6, 2002 Note to file, docket information that includes emails between NRC and FPL regarding RAI's (Request for additional information) concerning SAMA (Severe Accident Mitigation Assessment) review for the St. Lucie license renewal application (Accession No. ML021650664)
- June 25, 2002 Letter from Mr. D. E. Jernigan, FPL, regarding the response to NRC request for additional information related to the staff's review of severe accident mitigation alternatives for St. Lucie Units 1 and 2 (Accession No. ML021820106)
- July 8, 2002 NRC letter to Mr. J. A. Stall, FPL, concerning the issuance of environmental scoping summary report associated with the staff's review of the application by FPL for renewal of the operating licenses for St. Lucie Units 1 and 2 (Package No. ML021920466; (NRC letter, Accession No. ML021920289; and Environmental Scoping Summary Report, Accession No. ML021920439))
- July 22, 2002 NRC letter to Mr. J. A. Stall, FPL, to discuss the environmental assessment and finding of no significant impact related to amendments to the environmental protection plans at St. Lucie Units 1 and 2 (Accession No. ML021980172)
- July 24, 2002 NRC letter to Mr. Jay Slack, U.S. Fish and Wildlife Service, regarding the biological assessment for license renewal at St. Lucie Units 1 and 2, and request for informal consultation (Package No. ML022060314; (NRC letter, Accession No. ML022060232; and Biological Assessment, Accession No. ML022060295))
- July 30, 2002 Letter from Dr. Joseph E. Powers, National Marine Fisheries Service, concerning NRC letter dated June 3, 2002 regarding FPL's application for a 20-year renewal of operating licenses for St. Lucie Units 1 and 2 (Accession No. ML022200253)

August 23, 2002 NRC letter to Dr. Joseph E. Powers, National Marine Fisheries Service, requesting consultation under Section 7 of the Endangered Species Act for St. Lucie Units 1 and 2 (Accession No. ML022350292)

August 23, 2002 NRC letter to Mr. J. A. Stall, FPL, regarding the reinitiation of consultation under Section 7 of the endangered species act for St. Lucie Units 1 and 2 (Accession No. ML022350329)

September 20, 2002 Letter from Mr. Donald E. Jernigan, FPL, to NRC regarding the Reinitiation of ESA Section 7 Consultation for St. Lucie Units 1 and 2 (Accession No. ML022680524)

October 4, 2002 Letter from Linda Ferrell, U.S. Fish and Wildlife Service to NRC regarding Section 7 consultation for St. Lucie Units 1 and 2 (Accession No. ML030830467)

October 23, 2002 NRC letter to U.S. Environmental Protection Agency regarding the filing of the Draft Supplement 11 to the Generic Environmental Impact Statement regarding St. Lucie Units 1 and 2 (Accession No. ML022980557)

October 23, 2002 NRC letter to Mr. J. A. Stall, FPL, requesting comments on the Draft Supplement to the Generic Environmental Impact Statement relating to St. Lucie Units 1 and 2 (Accession No. ML022980636)

October 24, 2002 NRC letter to Mr. J. A. Stall concerning the *Federal Register* Notice of Availability of the Draft Supplemental Environmental Impact Statement regarding St. Lucie Units 1 and 2 (Accession No. ML022980502)

October 24, 2002 Letter from NRC to Mr. John Wayne Huff, Sr., Tribal Representative of the Brighton Seminole Indian Reservation, requesting comments on the Draft Supplemental Environmental Impact Statement related to St. Lucie Units 1 and 2 (Accession No. ML022980596)

October 24, 2002 NRC letter to Mr. James E. Billie, Chairman, Seminole Indian Tribe, requesting comments on the Draft Supplemental Environmental Impact Statement concerning St. Lucie Units 1 and 2 (Accession No. ML022980622)

## Appendix C

- October 24, 2002 Letter from NRC to Mr. Billy Cypress, Chairman, Miccosukee Indian Tribe, requesting comments on the Draft Supplemental Environmental Impact Statement pertaining to St. Lucie Units 1 and 2 (Accession No. ML022980630)
- October 31, 2002 Correspondence from Senator Bob Graham, U.S. Senator from the State of Florida, forwarding a comment letter from Ms. Betty Lou Wells concerning the license renewal application of St. Lucie Units 1 and 2 (Accession No. ML023120325)
- November 20, 2002 NRC press release requesting comments from members of the public regarding the Draft Supplemental Environmental Impact Statement related to the relicensing of St. Lucie Units 1 and 2 (Accession No. ML023240210)
- December 6, 2002 Letter from Mr. W. Lee Dobbins, St. Lucie County Chamber of Commerce, concerning license renewal for St. Lucie Units and 2 (Accession No. ML 030360015)
- December 12, 2002 Comment e-mail from Frank R. Leslie pertaining to St. Lucie Relicensing Plant Specific GEIS, Supplement 11 (Accession No. ML030270303)
- December 16, 2002 NRC letter to the Honorable Bob Graham, United States Senator, responding to his letter of October 31, 2002, concerning comments raised by Ms. Betty Lou Wells (Accession No. ML023300012)
- January 4, 2003 Comment email from Ms. Betty Lou Wells regarding public confidence, and the reconsideration of license renewal for St. Lucie Units 1 and 2 (Accession No. ML030150328)
- January 7, 2003 Summary of December 3, 2002, public meeting to discuss the Draft Supplemental Environmental Impact Statement Regarding License Renewal for St. Lucie Units 1 and 2 (Package No. ML030060091, (Meeting Summary, Accession No. ML030070482; Afternoon Meeting Transcript, Accession No. ML030080201; Evening Meeting Transcript, Accession No. ML030080240; Slide Presentation, Accession No. ML030060242))

- January 9, 2003 Letter from Mr. D. E. Jernigan, FPL, providing comments on the Draft Supplemental Environmental Impact Statement for St. Lucie (Accession No. ML030270297)
- January 10, 2003 Email from Ms. Betty Lou Wells regarding the license renewal application of St. Lucie Units 1 and 2 (Accession No. ML030150443)
- January 11, 2003 Comment email from Ms. Judy James concerning St. Lucie-specific Supplement to the Generic Environmental Impact Statement (Accession No. ML030150440)
- January 13, 2003 E-mail from Mr. Mark Oncavage providing comments related to the St. Lucie Draft Supplemental Environmental Impact Statement (Accession No. ML030270306)
- January 15, 2003 Comment letter from U.S. EPA regarding EPA review and comment on the St. Lucie Draft Supplemental Environmental Impact Statement (Accession No. ML030270298)
- February 10, 2003 NRC letter to Dr. Roy Crabtree, Regional Administrator, National Marine Fisheries Service, regarding informal Section 7 consultation for St. Lucie Nuclear Plant (Accession No. ML030420130)

## **Appendix D**

### **Organizations Contacted**



## Appendix D

### Organizations Contacted

During the course of the staff's independent review of environmental impacts from operations during the renewal term, the following Federal, State, Tribal, regional, and local agencies were contacted:

Brighton Seminole Indian Reservation, Okeechobee, Florida |

Business Development Board of Martin County, Stuart, Florida

Comprehensive Planning Division, Growth Management Department, Martin County, Stuart, Florida |

County Administrator, Martin County, Stuart, Florida

Department of Community Development, St. Lucie County, Fort Pierce, Florida |

Florida Department of Environmental Protection, St. Lucie Field Office, Florida

Florida Department of Health, Environmental Radiation Control, Orlando, Florida

Florida Fish and Wildlife Conservation Commission, Tequesta, Florida

Florida Fish and Wildlife Conservation Commission, Vero Beach, Florida

Florida State Historic Preservation Office, Tallahassee, Florida

Hoyt C. Murphy Realty, Fort Pierce, Florida |

Martin County Property Appraiser, Stuart, Florida

Martin County Cooperative Extension Service, Stuart, Florida |

Miccosukee Indian Tribe, Miami, Florida |

National Marine Fisheries Service, St. Petersburg, Florida

Port St. Lucie Mayor, Port St. Lucie, Florida

## Appendix D

Port St. Lucie City Manager, Port St. Lucie, Florida

| Property Appraiser, St. Lucie County, Fort Pierce, Florida

| Seminole Indian Tribe, Hollywood, Florida

| Salvation Army, Fort Pierce, Florida

| St. Lucie County Administrator, Fort Pierce, Florida

| St. Lucie County Community Services, Fort Pierce, Florida

St. Lucie County Economic Development Council, Port St. Lucie, Florida

| St. Lucie County Cooperative Extension Service, Fort Pierce, Florida

| St. Lucie County Tax Collector, Fort Pierce, Florida

U.S. Fish & Wildlife Service, Vero Beach, Florida

## **Appendix E**

### **Florida Power and Light Company's Compliance Status and Consultation Correspondence**

## **Appendix E**

### **Florida Power and Light Company's Compliance Status and Consultation Correspondence**

The licenses, permits, consultations, and other approvals obtained from Federal, State, regional, and local authorities for St. Lucie Units 1 and 2 are listed in Table E-1.

Following Table E-1 are reproductions of correspondence prepared and sent during the evaluation process of the application for renewal of the operating licenses for St. Lucie Units 1 and 2.

**Table E-1.** Federal, State, Local, and Regional Licenses, Permits, Consultations, and Other Approvals for St. Lucie Units 1 and 2

Agency	Authority	Description	Number	Expiration Date	Remarks
NRC	10 CFR Part 50	Operating license, St. Lucie Unit 1	DPR-67	3/1/16	Authorizes operation of Unit 1
NRC	10 CFR Part 50	Operating license, St. Lucie Unit 2	NPF-16	4/6/23	Authorizes operation of Unit 2
FWS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation	None	None	Section 7 of the Endangered Species Act requires that Federal agencies, in cooperation with the license applicant, consult with the FWS and/or the NMFS concerning the potential impacts of a proposed licensing action on threatened or endangered species. Correspondence with FWS and NMFS related to Section 7 is included in Appendix E.
NMS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation	None	5/18/11	Section 7 of the Endangered Species Act requires that Federal agencies, in cooperation with the license applicant, consult with the NMFS concerning the potential impacts of a proposed licensing action on threatened or endangered species. NRC staff has been in consultation with NMFS with respect to marine species since the early 1980s. The current biological opinion provides an incidental take statement for threatened or endangered sea turtles.

Table E-1. (cont'd)

Agency	Authority	Description	Number	Expiration Date	Remarks
U.S. Army Corps of Engineers	Rivers and Harbors Act (33 USC 403) and Clean Water Act (33 USC 1344)	Dredging permit	199301803	12/21/03	Authorizes maintenance dredging of intake canal
Florida Department of Community Affairs	Section 307 of the Coastal Zone Management Act [16 USC 1456(c)(3)(A)]	Consistency determination with the Florida Coastal Management Program	Letter from Shirley Collins, Florida Department of Community Affairs, to FPL; FL200201111376C; March 6, 2002	None	The Department of Community Affairs determined that renewal of the St. Lucie OLS would be consistent with the Florida Coastal Management Program.
Florida Division of Historic Resources	Section 106 of the National Historic Preservation Act (16 USC 470f)	Consultation	Letter from Janet Snyder Matthews, State Historic Preservation Officer to FPL, 5/22/01		The National Historic Preservation Act requires Federal agencies to take into account the effect of any undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places. The Florida Division of Historical Resources determined that renewal of the OLS is not an undertaking that is likely to affect historic properties.
FDEP	Clean Water Act, Section 402; Florida Statutes, Chapter 403	NPDES permit (Industrial Wastewater Permit)	FL0002208-Major	1/9/05	Permit covers surface-water discharges and stormwater discharges from diked petroleum storage and handling areas. NPDES requirements are incorporated into the Industrial Wastewater Facility Permit issued by FDEP.

**Table E-1. (cont'd)**

<b>Agency</b>	<b>Authority</b>	<b>Description</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Remarks</b>
FDEP	Florida Statutes, Chapter 376	Annual storage tank registration	Facility ID: 8630677 Placard No.: 135878	6/30/02	Registration covers five above ground petroleum storage tanks.
FDEP and Siting Board (Governor and Cabinet)	Florida Statutes, Sections 403.501 - 518	Certification under the Florida Electrical Power Plant Siting Act	Case No: PA74-02	Life of plant	Siting, construction, and operation of St. Lucie Unit 2 (Unit 1 was permitted before enactment of the Siting Act in 1973)
FDEP	Florida Statutes, Chapter 403	Air emissions permit	1110071-003-AO	6/26/05	Permit covers emissions from six emergency diesel generators, miscellaneous diesel-driven equipment, and facility-wide fugitive emissions from storage tanks, roadways, and paint/sandblasting activities.
FFWCC	Florida Administrative Code, Chapter 39	Special purpose permit	02R-018	6/30/03	Permit covers collection and possession of marine organisms for experimental purposes.
FFWCC	Florida Administrative Code, Chapter 39	Marine turtle permit	TP#026	1/31/04	Permit authorizes FPL to conduct public turtle watches and maintain and display preserved specimens.
FFWCC	Florida Administrative Code, Chapter 39	Marine turtle permit	TP#125	1/31/04	Permit authorizes various turtle activities including net capture, tagging, nesting surveys, hand capture, nest relocation, rescue and release of hatchlings, and stranding and salvage activities.

**Table E-1. (cont'd)**

<b>Agency</b>	<b>Authority</b>	<b>Description</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Remarks</b>
FFWCC	Florida Administrative Code, Chapter 39	Scientific collecting permit	WS01374	6/25/04	FPL system-wide permit authorizing carcass or wildlife salvage and possession for scientific or educational purposes.
FFWCC	Florida Administrative Code, Chapter 39	Migratory bird nest permit	WN01373	6/25/03	FPL system-wide permit authorizing destruction of inactive migratory bird nests other than osprey nests.
SFWMD	Florida Administrative Code, Section 40E-20.042	General water use permit	56-01238-W	5/21/09	Permit covers remediation of surficial aquifer.
SFWMD	Florida Administrative Code, Section 65-25	Stormwater discharge permit	56-00848-S	Perpetual	Permit authorizes stormwater discharge from the overflow parking lot.
SFWMD	Florida Administrative Code, Section 65-25	Stormwater discharge permit	85-142	Perpetual	Permit authorizes stormwater discharge from the simulator building.

CFR = Code of Federal Regulations  
 FDEP = Florida Department of Environmental Protection  
 FFWCC = Florida Fish and Wildlife Conservation Commission  
 FWS = U.S. Fish and Wildlife Service  
 ID = identification number  
 NMFS = National Marine Fisheries Service  
 NPDES = National Pollution Discharge Elimination System  
 NRC = U.S. Nuclear Regulatory Commission  
 OL = operating license  
 SFWMD = South Florida Water Management District  
 USC = United States Code



Appendix E

**Table E.2.** Consultation Correspondence

<b>Source</b>	<b>Recipient</b>	<b>Date of Letter</b>
U.S. Nuclear Regulatory Commission (C. I. Grimes)	U.S. Fish and Wildlife Service (S. Slack)	February 27, 2002
U.S. Fish and Wildlife Service (L. S. Ferrell)	U.S. Nuclear Regulatory Commission (C. I. Grimes)	March 15, 2002
U.S. Nuclear Regulatory Commission (P. T. Kuo)	U.S. Fish and Wildlife Service (J. Slack)	July 24, 2002
U.S. Fish and Wildlife Service (L. S. Ferrell)	U.S. Nuclear Regulatory Commission (P. T. Kuo)	October 4, 2002
U.S. Nuclear Regulatory Commission (P. T. Kuo)	National Marine Fisheries Service (J. E. Powers)	June 3, 2002
National Marine Fisheries Service (J. E. Powers)	U.S. Nuclear Regulatory Commission (P. T. Kuo)	July 30, 2002
U.S. Nuclear Regulatory Commission (B. T. Moroney)	National Marine Fisheries Service (J. E. Powers)	August 23, 2002
U.S. Nuclear Regulatory Commission (B. T. Moroney)	Florida Power and Light Company (J. A. Stall)	August 23, 2002
U.S. Nuclear Regulatory Commission (P. T. Kuo)	National Marine Fisheries (R. Crabtree)	February 10, 2003
Florida Department of Environmental Protection (R. W. Hall)	Florida State Clearinghouse (M. Murray)	February 8, 2002
Florida Coastal Management Program (S. W. Collins)	Florida Power and Light Company (D. E. Jernigan)	March 6, 2002

February 27, 2002

Mr. Jay Slack, Field Supervisor  
US Fish and Wildlife Service  
South Florida Ecological Service Office  
1339 20<sup>th</sup> Street  
Vero Beach, FL 32960

SUBJECT: REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER  
EVALUATION FOR THE ST. LUCIE PLANT LICENSE RENEWAL

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Florida Power and Light Company for the renewal of the operating licenses for its St. Lucie Plant, Units 1 and 2. The NRC is preparing a supplement to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed license renewal, for which we are required to evaluate potential impacts to threatened and endangered species. A member of my staff, Dr. Michael T. Masnik, visited your Vero Beach, Florida office on December 17, 2001, and had preliminary discussions related to the FPL application for license renewal with Mr. Charles Kelso of your staff.

The proposed action would include use and continued maintenance of existing facilities and transmission lines and would not result in new construction or disturbance. The St. Lucie Plant and the associated transmission corridor that is under review as part of the license renewal application is located in St. Lucie County, Florida. The transmission corridor is approximately 11 miles long and varies from 660 to 813 feet in width. The plant uses once-through cooling water from the Atlantic Ocean to remove waste heat from the facility. Ocean water is drawn through three offshore intake structures into an intake canal that leads to the plant. The heated water is discharged back to the Atlantic Ocean through offshore diffusers. The Atlantic Ocean in the vicinity of the plant is considered part of the aquatic environment of interest.

To support the environmental impact statement preparation process and to ensure compliance with Section 7 of the Endangered Species Act, the NRC requests a list of species and information on protected, proposed, and candidate species and critical habitat that may be in the vicinity of the St. Lucie Plant and its associated transmission lines.

Also, we would like confirmation that the South Florida Ecological Service Office will serve as the U.S. Fish and Wildlife Service's point of contact for Endangered Species Act compliance, including any Section 7 consultation that may be needed, for the St. Lucie Plant.

## Appendix E

J. Slack

- 2 -

If you have any comments or questions, please contact Dr. Michael T. Masnik, Senior Project Manager, at (301) 415-1191 or [MTM2@NRC.GOV](mailto:MTM2@NRC.GOV).

Sincerely,

**Original Signed By: CIGrimes**

Christopher I. Grimes, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

cc: See next page



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 27, 2002

RECEIVED  
MAR 04 2002

BY \_\_\_\_\_

50-335/389

Mr. Jay Slack, Field Supervisor  
US Fish and Wildlife Service  
South Florida Ecological Service Office  
1339 20<sup>th</sup> Street  
Vero Beach, FL 32960

SUBJECT: REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER  
EVALUATION FOR THE ST. LUCIE PLANT LICENSE RENEWAL

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Florida Power and Light Company for the renewal of the operating licenses for its St. Lucie Plant, Units 1 and 2. The NRC is preparing a supplement to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed license renewal, for which we are required to evaluate potential impacts to threatened and endangered species. A member of my staff, Dr. Michael T. Masnik, visited your Vero Beach, Florida office on December 17, 2001, and had preliminary discussions related to the FPL application for license renewal with Mr. Charles Kelso of your staff.

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Also, we would like confirmation that the South Florida Ecological Service Office will serve as the U.S. Fish and Wildlife Service's point of contact for Endangered Species Act compliance, including any Section 7 consultation that may be needed, for the St. Lucie Plant.

U.S. Fish and Wildlife Service  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960  
561-562-3909 Fax 561-562-4288



Service Record Number 2002-4008

Enclosed find a complete list and discussion of federally listed species and their habitats, in the future please visit our web page at:  
[http://verobeach.fws.gov/Species\\_lists/countyfr.html](http://verobeach.fws.gov/Species_lists/countyfr.html) or  
<http://verobeach.fws.gov/Programs/Recovery/vbms5.html>.

*Leisa S. Peterson*  
Leisa S. Peterson  
Chief, Project Planning  
South Florida Ecological Services Office

*3-15-02*  
Date

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A089

**U.S. Fish & Wildlife Service**  
**South Florida Field Office**

## Multi-Species Recovery Plan

Now Available on the  
Internet!

**U. S. Fish & Wildlife Service Unveils South Florida  
Multi-species Recovery Plan**  
May 18, 1999



**B**ruce Babbitt, Secretary, Department of the Interior and Sam Hamilton, Regional Director, U.S. Fish & Wildlife Service Southeast Region, presided over a landmark signing ceremony for the **Multi-species Recovery Plan** at the recent South Florida Restoration Science Forum in Boca Raton Florida. This event marked a major step toward South Florida Ecosystem restoration and the recovery of threatened and endangered species in South Florida.

**Executive Summary**  
(220KB)

**Department of Interior News Brief** as a .pdf file

**Introduction**  
(463KB)

**The South Florida  
Ecosystem**  
(1.5mMB)

**The Ecological  
Communities**

**The Species**

**Implementation**  
(103KB)

**Appendices**

All documents on these pages are available as .PDF files. PDF files can be downloaded and read using Adobe Acrobat Reader.

This software is free and is available from Adobe Inc.

<http://www.adobe.com/acrobat/>

The Multi-species Recovery Plan is one of the first and most far reaching ecosystem plans developed by the Service. It serves as a blueprint to recover 68 threatened and endangered species, and to restore and maintain biodiversity of native plants and animals in the 23 natural communities throughout about 26,000 square miles of the 19 southernmost counties in Florida.

The final document is available from the Fish & Wildlife Service Reference Service. The CD-ROM copy is provided free of charge. Other formats include photocopy and microfiche, however, please contact the Reference Service to determine applicable duplication and mailing charges. You can order your copy by e-mailing your request to the Reference Service, calling their toll free number (800)582-3421, or mailing your request to:

Fish & Wildlife Service Reference Service  
5430 Grosvenor Lane  
Suite 110  
Bethesda, MD 20814.

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Page 1 of 2

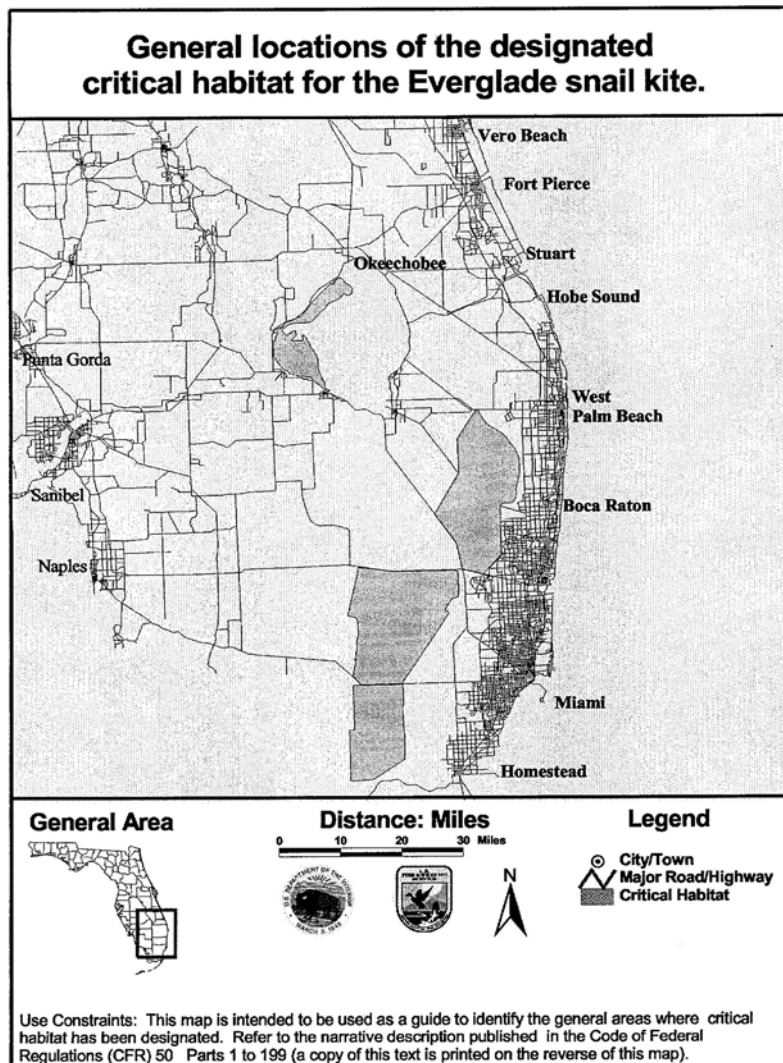
Listed Species in St. Lucie County (updated June 2000)		
Species	Federal status	Habitat
Southeastern beach mouse <i>Peromyscus polionotus niveiventris</i>	T	Beach dune/Coastal strand
West Indian manatee <i>Trichechus manatus</i>	E (CH)	Mangrove, Seagrass, Nearshore reef
Audubon's crested caracara <i>Polyborus plancus audubonii</i>	T	Mesic temperate hammock, Mesic pine flatwoods, Hydric pine flatwoods, Dry prairie, Wet prairie
Bald eagle <i>Haliaeetus leucocephalus</i>	T	High pine, Scrubby high pine, Maritime hammock, Mesic temperate hammock, Pine rockland, Scrubby flatwoods, Mesic pine flatwoods, Hydric pine flatwoods, Dry prairie, Wet prairie, Freshwater marsh, Seepage swamp, Flowing water swamp, Pond swamp, Mangrove, Saltmarsh, Seagrass
Everglade snail kite <i>Rostrhamus sociabilis plumbeus</i>	E (CH)	Hydric pine flatwoods, Freshwater marsh, Pond swamp
Florida scrub-jay <i>Aphelocoma coerulescens</i>	T	Scrub, Scrubby flatwoods
Red-cockaded woodpecker <i>Picoides (= Dendrocopos) borealis</i>	E	High pine, Mesic pine flatwoods, Hydric pine flatwoods
Wood stork <i>Mycteria americana</i>	E	Hydric pine flatwoods, Wet prairie, Freshwater marsh, Seepage swamp, Flowing water swamp, Pond swamp, Mangrove, Saltmarsh, Seagrass
American alligator <i>Alligator mississippiensis</i>	T (S/A)	Hydric pine flatwoods, Wet Prairie, Freshwater marsh, Seepage swamp, Pond Swamp, Mangrove, Hydric pine flatwoods, Wet prairie, Seepage swamp, Flowing water swamp, Pond swamp
Eastern indigo snake <i>Drymarchon corais couperi</i>	T	High pine, Tropical hardwood hammock, Scrubby high pine, Beach dune/Coastal strand, Maritime hammock, Mesic temperate hammock, Pine rockland, Scrubby flatwoods, Mesic pine flatwoods, Hydric pine flatwoods, Dry prairie, Cutthroat grass, Freshwater marsh, Seepage swamp, Flowing water swamp, Pond swamp, Mangrove
Green sea turtle <i>Chelonia mydas (incl. Agassizi)</i>	E	Beach dune/Coastal strand, Seagrass, Nearshore reef
Leatherback sea turtle <i>Dermochelys coriacea</i>	E	Beach dune/Coastal strand, Seagrass, Nearshore reef
Loggerhead sea turtle <i>Caretta caretta</i>	T	Beach dune/Coastal strand, Seagrass, Nearshore reef
Four-petal pawpaw <i>Asimina tetramera</i>	E	Scrub
Fragrant prickly-apple <i>Cereus eriophorus var. fragrans</i>	E	Scrub, Scrubby flatwoods
Johnson's seagrass <i>Halophila johnsonii</i>	T (CH)	Seagrass
Lakela's mint <i>Dicerandra immaculata</i>	E	Scrub
Tiny polygala <i>Polygala smallii</i>	E	High pine, Scrub, Pine rockland, Scrubby flatwoods

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3/11/2002

**Critical Habitat for the Everglade snail kite**  
*(Rostrhamus sociabilis plumbeus)*  
as defined in the Code of Federal Regulations 50 Parts 1 to 199,  
revised as of October 1, 2000.

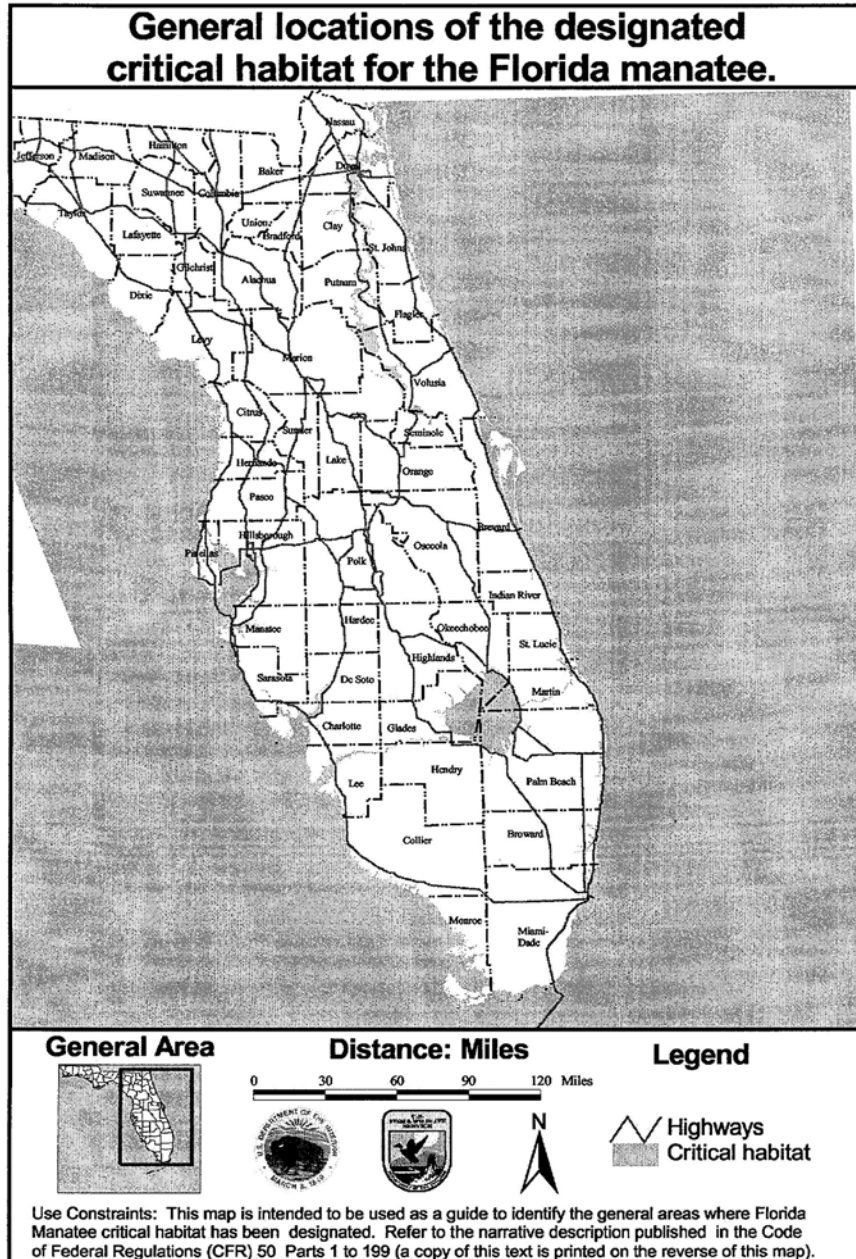
Florida. Areas of land (predominantly marsh), water, and airspace, with the following components (Tallahassee Meridian): (1) St. Johns Reservoir, Indian River County: T33S R37E SW1/4 Sec. 6, W1/2 Sec. 7, Sec. 18, Sec. 19; (2) Cloud Lake Reservoir, St. Lucie County; T34S R38E S1/2 Sec. 16, N1/2 Sec. 21; (3) Strazzulla Reservoir, St. Lucie County: T34S R38E SW1/4 Sec. 21; (4) western parts of Lake Okeechobee, Glades and Hendry counties, extending along the western shore to the east of the levee system and the undiked high ground at Fisheating Creek, and from the Hurricane Gate at Clewiston northward to the mouth of the Kissimmee River, including all the *Eleocharis* flats of Moonshine Bay, Monkey Box, and Observation Shoal, but excluding the open water north and west of the northern tip of Observation Shoal, north of Monkey Box, and east of Fisheating Bay; (5) Loxahatchee National Wildlife Refuge (Central and Southern Florida Flood Control District Water Conservation Area 1), Palm Beach County, including Refuge Management Compartments A, B, C, and D, and all of the main portion of the Refuge as bounded by Levees L-7, L-39, and L-40; (6) Central and Southern Florida Flood Control District Water Conservation Area 2A, Palm Beach and Broward Counties, as bounded by Levees L-6, L-35B, L-36, L-38, and L-39; (7) Central and Southern Florida Flood Control District Water Conservation Area 2B, Broward County, as bounded by Levee L-35, L-35B, L-36, and L-38; (8) Central and Southern Florida Flood Control District Water Conservation Area 3A, Broward and Dade Counties, as bounded by Florida Highway 84. Levees L-68A, L-67A (north of Miami Canal), L-67C (south of Miami Canal). L-29, and L-28, and a line along the undiked northwestern portion of the Area; (9) that portion of Everglades National Park, Dade County, within the following boundary: Beginning at the point where the Park boundary meets Florida Highway 94 in T54S R35 Sec. 20, thence eastward and southwest along the Park boundary to the southwest corner of Sec. 31 in T7S R37E, thence southwestward along a straight line to the southwest corner of Sec. 2 in T58S R35E, thence westward along the south sides of Sec. 3, 4, 5, and 6 in T58S R35E to the Dade-Monroe county line, thence northward along the Dade-Monroe county line to the Park boundary, thence eastward and northward along the Park boundary to the point of beginning.





Critical Habitat for the **Florida manatee** (*Trichechus manatus*)  
as defined in the Code of Federal Regulations 50 Parts 1 to 199,  
revised as of October 1, 2000.

Crystal River and its headwaters known as King's Bay, Citrus County; the Little Manatee River downstream from the U.S. Highway 301 bridge, Hillsborough County; the Manatee River downstream from the Lake Manatee Dam, Manatee County; the Myakka River downstream from Myakka River State Park, Sarasota and Charlotte Counties; the Peace River downstream from the Florida State Highway 760 bridge, De Soto and Charlotte Counties; Charlotte Harbor north of the Charlotte-Lee County line, Charlotte County; Caloosahatchee River downstream from the Florida State Highway 31 bridge, Lee County; all U.S. territorial waters adjoining the coast and islands of Lee County; all U.S. territorial waters adjoining the coast and islands and all connected bays, estuaries, and rivers from Gordon's Pass, near Naples, Collier County, southward to and including Whitewater Bay, Monroe County; all waters of Card, Barnes, Blackwater, Little Blackwater, Manatee, and Buttonwood Sounds between Key Largo, Monroe County, and the mainland of Dade County; Biscayne Bay, and all adjoining and connected lakes, rivers, canals, and waterways from the southern tip of Key Biscayne northward to and including Maule Lake, Dade County; all of Lake Worth, from its northernmost point immediately south of the intersection of U.S. Highway 1 and Florida State Highway A1A southward to its southernmost point immediately north of the town of Boynton Beach, Palm Beach County; the Loxahatchee River and its headwaters, Martin and West Palm Beach Counties; that section of the intracoastal waterway from the town of Seawalls Point, Martin County to Jupiter Inlet, Palm Beach County; the entire inland section of water known as the Indian River, from its northernmost point immediately south of the intersection of U.S. Highway 1 and Florida State Highway 3, Volusia County, southward to its southernmost point near the town of Seawalls Point, Martin County, and the entire inland section of water known as the Banana River and all waterways between Indian and Banana Rivers, Brevard County; the St. Johns River including Lake George, and including Blue Springs and Silver Glen Springs from their points of origin to their confluences with the St. Johns River; that section of the Intracoastal Waterway from its confluences with the St. Marys River on the Georgia-Florida border to the Florida State Highway A1A bridge south of Coastal City, Nassau and Duval Counties.



Federally Listed and Candidate Species, and Designated Critical Habitats Occurrences in South Florida by County

Sources: Multi-species recovery plan for south Florida and Candidate status review, species may occur in suitable community types in counties that are not checked.

	Miami-Dade	Broward	Palm Beach	Martin	St. Lucie	Indian River	Osceola									Polk	Highlands	Glades	Henry	Hardee	DeSoto	Sarasota	Charlotte	Lee	Collier	Monroe				
<b>Mammals (except whales)</b>																														
E Florida panther	✓	✓	✓			✓									✓									✓	✓	✓	✓			
SA Puma (=mountain lion)	✓	✓				✓									✓									✓	✓	✓	✓	✓		
E Key deer																														
E Key Largo cotton mouse																														
E Key Largo woodrat																														
E Lower Keys rabbit																														
E Rice rat (=silver rice rat)																														
CH Rice rat (=silver rice rat)																														
T Southeastern beach mouse																														
E West Indian manatee	✓	✓	✓	✓	✓	✓																								
CH West Indian manatee	✓	✓	✓	✓	✓	✓																								
<b>Birds</b>																														
T Audubon's crested catbird			✓	✓	✓	✓	✓																							
E Bachman's warbler			✓	✓	✓	✓	✓																							
T Bald eagle																														
E Cape Sable seaside sparrow	✓	✓	✓	✓	✓	✓	✓																							
CH Cape Sable seaside sparrow	✓	✓	✓	✓	✓	✓	✓																							
E Everglade snail kite	✓	✓	✓	✓	✓	✓	✓																							
CH Everglade snail kite	✓	✓	✓	✓	✓	✓	✓																							
E Florida grasshopper sparrow																														
T Florida scrub-jay																														
E Ivory-billed woodpecker																														
E Kingbird's warbler																														
T Piping plover																														
E Red-cockaded woodpecker	✓	✓	✓	✓	✓	✓	✓																							
T Roseate tern	✓	✓	✓	✓	✓	✓	✓																							
XN Whooping crane																														
E Wood stork	✓	✓	✓	✓	✓	✓	✓																							

✓ = Species occurs in county; E=Endangered; T=Threatened; C=Candidate; CH=Critical habitat designated; XN=Nonessential experimental population; SA=Similarity of Appearance  
South Florida Field Office revised 12/07/99 Page 1

Species	County																
	Miami-Dade	Broward	Palm Beach	Martin	St. Lucie	Indian River	Osceola										
<b>Reptiles</b>																	
E American crocodile	✓																
CH American crocodile	✓																
SA American alligator	✓																
T Atlantic salt marsh snake																	
T Bluetail (blue-tailed) mole skink																	
T Eastern indigo snake																	
E Green sea turtle																	
E Hawksbill (=carey) sea turtle																	
E Kemp's (=Atlantic) ridley sea turtle																	
E Leatherback sea turtle																	
T Loggerhead sea turtle																	
T Sand skink																	
<b>Invertebrates</b>																	
C Highlands tiger beetle																	
F Schaus swallowtail butterfly																	
T Stock Island tree snail																	
<b>Plants</b>																	
E Cremulate lead-plant																	
C Bloodroot's silverbush																	
E Four-petal pawpaw																	
T Florida bonania																	
C Florida brickell-bush																	
E Fragrant prickly-apple																	
C Big Pine partridge pea																	
E Deltoid spurge																	
C Pineland sandmat																	
C Wedge spurge																	
T Garber's spurge																	
E Pymy fringe-tree																	
C Cape Sable thoroughwort																	
E Florida golden aster																	
E Florida perforate cladonia																	
T Pigeon wings																	

✓ = Species occurs in county; E=Endangered; T=Threatened; C=Candidate; CH=Critical habitat designated; XN=Nonessential experimental population; SA=Similarity of Appearance  
 South Florida Field Office revised 12/07/99



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
SOUTH FLORIDA ECOLOGICAL SERVICES OFFICE  
1339 20TH STREET  
VERO BEACH, FLORIDA 32960-3559  
OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300



United States Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

DCO

## Appendix E

July 24, 2002

Mr. Jay Slack, Field Supervisor  
U.S. Fish and Wildlife Service  
South Florida Ecological Service Office  
1339 20<sup>th</sup> Street  
Vero Beach, FL 32960

SUBJECT: BIOLOGICAL ASSESSMENT FOR LICENSE RENEWAL AT ST. LUCIE,  
UNITS 1 AND 2 AND REQUEST FOR INFORMAL CONSULTATION  
(TAC NOS. MB3407 AND MB3411)

Dear Mr. Slack:

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Florida Power and Light Company for the renewal of the operating licenses for an additional 20 years for its St. Lucie Nuclear Plant, Units 1 and 2. The St. Lucie plant is located in St. Lucie County, Florida, on Hutchinson Island approximately 7.2 km (4.5 miles) east of the city of Port St. Lucie, Florida. The current license for Unit 1 will expire on March 1, 2016, and for Unit 2 on April 6, 2023. License renewal will extend the operating license for each unit an additional 20 years past the above dates. The proposed action would include the continued operation and maintenance of the existing facilities at the St. Lucie plant site and the transmission corridor that connects St. Lucie, Units 1 and 2 to the regional electrical grid. The proposed action will not include any new construction or onsite disturbance. The NRC is preparing a supplement to its 1996 "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed license renewal. As part of the renewal review, we evaluate potential impacts to Federally listed, proposed, or candidate species, as well as designated or proposed critical habitat.

In a letter to you dated February 27, 2002, the NRC staff requested a list of Federally-protected species and any critical habitat known from the vicinity of the St. Lucie plant. The NRC staff received correspondence from Ms. L. Ferrell of your staff, dated March 15, 2002, that provided a list of listed, proposed, or candidate species known from the vicinity of the plant site. On April 2, 2002, the NRC staff conducted a site audit of the St. Lucie facility in which subject matter experts from a variety of disciplines were present to conduct the environmental evaluation. Mr. C. Kelso, of your staff, was present at the site audit.

Since April 2, 2002, the NRC staff and its contractor, Pacific Northwest National Laboratory, has evaluated the potential impact of the power plant re-licensing on the list of species provided in your March 15, 2002, correspondence. We have prepared the enclosed biological assessment (BA) that provides an evaluation of the potential for impact to each of the 14 Federally-protected species known from the vicinity of the site.

The staff has determined that the proposed action is not a major construction activity. The proposed action will "not effect" the American alligator (*Alligator mississippiensis*), the bald

J. Stack

- 2 -

eagle (*Haliaeetus leucocephalus*), the wood stork (*Mycteria americana*), the red-cockaded woodpecker (*Picoides borealis*), the Audubon's crested caracara (*Polyborus plancus audubonii*), the Everglades snail kite (*Rostrhamus sociabilis*), the southern beach mouse (*Peromyscus polionotus niveiventris*), the Lakela's mint (*Dicerandra immaculate*) and the tiny milkwort (*Polygala smallii*). The staff has determined that the proposed action is "not likely to adversely affect" the eastern indigo snake (*Drymarchon corias couperi*), the Florida scrub-jay (*Aphelocoma coerulescens*), the Florida manatee (*Trichechus manatus*), the four-petal pawpaw (*Asimina tetramera*), or the fragrant prickly apple (*Harrisia (Cereus) eriophorus*).

The staff has also determined that there is designated critical habitat for the Florida manatee in all of the Indian River Lagoon that forms the western boundary of the St. Lucie, Units 1 and 2 site. Direct effects of plant operations on the designated critical habitat on the manatees in the Indian River Lagoon are determined to be non-existent. Nearby Big Mud Creek, an arm of the Indian River Lagoon that is closest to the plant, is closed to the general public for reasons of plant physical security and the licensee withdraws no water or has any routine activities in this or any other nearby habitat designated critical during normal plant operations.

The reasons for our conclusions related to the "no effect" or "not likely to adversely affect" for each of the 14 species and a discussion of the critical habitat in Indian River are documented in the enclosed BA. We are placing a copy of the BA in our project files and on our public docket for this license renewal application and are requesting your concurrence with our determination.

If you have questions regarding the proposed action, the BA, or the staff's request for concurrence, please contact the environmental project manager, Dr. Michael Masnik, by telephone at 301-415-1191 or e-mail at MTM2@NRC.GOV.

Sincerely,

**Original Signed By: PTKuo**

Pao-Tsin Kuo, Program Director

License Renewal and Environmental Impacts

Division of Regulatory Improvement Program

Office of Nuclear Reactor Regulation

Docket Nos.: 50-335 and 50-389

Enclosure: As stated

cc w/encl.: See next page



# **Biological Assessment**

**St. Lucie Units 1 and 2  
License Renewal Review**

**St Lucie County, Florida**

**June 2002**

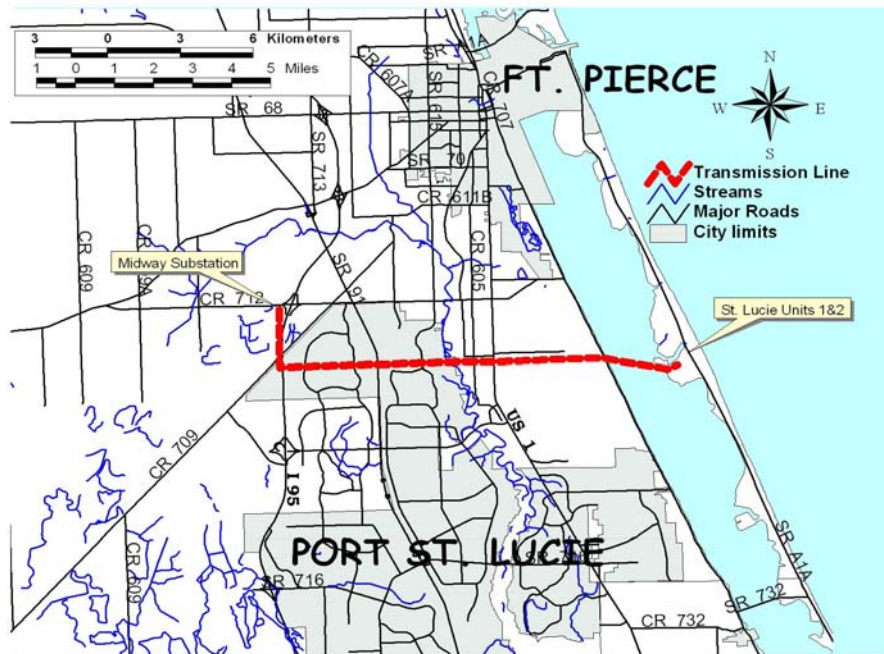
**Docket Nos. 50-335 and 50-389**

**U.S. Nuclear Regulatory Commission  
Rockville, Maryland**

**Evaluation of the Potential Effects on Endangered or Threatened Species from the Proposed License Renewal for the St. Lucie Units 1 and 2 Nuclear Power Plants.**

**The Setting:**

The proposed license renewal will apply to the facilities at the site of St. Lucie Units 1 and 2 on Hutchinson Island approximately 11.2 km (7 mi) southeast of Ft. Pierce, FL, as well as the 17.6 km (11 mi) long transmission line that connects the nuclear units with the regional transmission grid at the Midway Substation (Figure 1).



**Figure 1. General Location of the St. Lucie Units 1 and 2 Nuclear Power Station, and the associated transmission corridor.**

Hutchinson Island is typical of the offshore sandbars which line the southern U.S. Atlantic coastline. It consists of a sandbar on the eastern side that rises to about 4.6 m (15 ft) above MSL and a broader, sloping swale on the western side. The seaward side of the dunes currently have no vegetation and the inland side of the dunes are dominated by sea oats (*Unida paniculata*), sea grape (*Coccoloba uvifera*), salt marsh hay (*Spartina patens*), Australian pine (*Casuarina equisetifolia*), marsh ox-eye (*Barrichia*

## Appendix E

*frutescens*), beach sunflower (*Helianthus debilis*), marsh elder (*Iva frutescens*), bay bean (*Canavalia rosea*), and railroad vine (*Ipomoea pescaprae*) (Foster Wheeler 2001).

Prior to the 1930s, the mangrove swamps on the western side of the island were maintained by tidal and occasional storm driven incursions of sea water as well as by rain (AEC 1973). The swales were dominated by red mangrove (*Rhizophora mangle*), with black mangrove (*Avicennia nitida*) and white mangrove (*Ragunularia racemosa*) established in the higher and less frequently flooded ground. These mangrove swamps are noteworthy for their high productivity, and the rich animal communities that they support. Much of these natural mangrove swamps were destroyed during the 1930s and 1940s as part of a mosquito control program initiated by the Work Projects Administration (W.P.A). The swamps were trenched, dyked, and flooded with sea water which greatly reduced mosquito breeding, but also led to the loss of many trees, especially the black mangroves (AEC 1973). Since that time, there has been partial restoration of the swales, but much of the area continues to be maintained in an inundated state by the local mosquito control districts.

There are also a few small tropical hammock habitats on Hutchinson Island near the St. Lucie site; the largest is among the mangrove stands north of the discharge canal. These habitats are unusual this far north, prominent species include gumbo-limbo (*Bursera simaruba*), paradise tree (*Simarouba glauca*), white and Spanish stoppers (*Eugenia axillaris* and *E. foetida*), wild lime (*Zanthoxylum fagara*), white indigo berry (*Randia aculeata*), mastic (*Mastichodendron foetidissimum*), and snow berry (*Chiocococca alba*).

Habitat in the transmission line corridor is a mixture of man-altered areas, sand pine scrub, prairie/pine flatwoods, wet prairie, and isolated marshes. In the 1970s, much of the corridor was used for agricultural purposes such as orange groves, row crops, and pastureland (AEC 1973). Most of that agricultural use has since been abandoned, except for the western portions that are used for grazing.

There is designated critical habitat for the Florida manatee in all of the Indian River Lagoon to the west of St. Lucie Units 1 and 2, including Big Mud Creek, an extension of Indian River which adjoins the plant site to the north. Critical habitat for the snail kite is located approximately 19 km (11.8 mi) northwest of the Midway Substation. Additionally, although not designated as critical habitat, the beach areas on the eastern side of Hutchinson Island are important nesting areas for the loggerhead (*Caretta caretta*) sea turtle, and they are also used to a lesser extent for nesting by green (*Chelonia mydas*) and leatherback (*Dermochelys coriacea*) sea turtles. Potential impacts to endangered or threatened sea turtles has been evaluated through a separate consultation with the National Marine Fisheries Service.

### Proposed Action

The proposed action is the granting of a renewal of the current operating licenses for St. Lucie Units 1 and 2, that would allow these units to continue operations for an additional 20 years beyond their current license terms. The license for Unit 1 is currently set to expire in March, 2016, and the Unit 2 License will expire in April 2023. The proposed license renewal will, therefore, extend the license terms for Unit 1 until 2036 and for Unit 2 until 2043. The extension of the license terms will result in the continuation of the operation and maintenance of the nuclear power reactors, the cooling water intake and discharge structures and canals, and support facilities at the plant site. No changes are expected in terms of

ecological or environmental impacts of the present operations. In addition, the renewal of the operating license is not anticipated to require any significant new construction or modification of existing terrestrial or aquatic habitats. The St. Lucie site occupies approximately 457 ha (1130 ac), of which approximately one-third has been significantly modified for the construction and operation of the power production reactors, intake and discharge canals, switchyard, and support facilities.

If the license renewal is granted, the transmission lines and corridor that connects St. Lucie Units 1 and 2 to the regional transmission grid will continue to be operated and maintained as they have for the last 25 years. FPL maintains the Midway Corridor using a combination of trimming, mowing, and herbicide application. When required, FPL trims trees at a height of 22.5 m (14 ft) to maintain clearances below the conductors. Tree trimming is typically needed only at the midspan of the transmission lines between the towers. In open areas, FPL usually follows a five-year mowing cycle. Herbicides are used both for spot treatment of individual trees and occasionally as broadcast applications to control exotic grasses. FPL uses only non-restricted use herbicides, which are applied under the supervision of licensed pesticide applicators. FPL uses a computer database to prepare management prescriptions for each section of transmission line corridor that incorporates known management concerns and environmental sensitivities, including rare species.

#### Species Evaluated

There are 14 species listed as threatened or endangered under the Federal ESA within St. Lucie County (Table 1). There are no species currently proposed for formal listing or considered candidates for listing in St. Lucie County. The NRC has determined that the proposed action will either have *no effect* or will be *not likely to adversely affect* the endangered or threatened species in the vicinity of the St. Lucie plant and associated transmission corridor. The basis for the determinations for each species in the vicinity of the plant site and transmission corridor are discussed in the following paragraphs.

1. *Drymarchon corias couperi*, Eastern indigo snake

The eastern indigo snake has not been observed on the St. Lucie site or along the transmission corridor, but individuals have been observed elsewhere on Hutchinson Island (FPL 2001). Gopher tortoises (*Gopherus polphemus*) are present on the site, especially on the leeward side of the dunes to the east of the plant site and intake/discharge canals (FPL 2001). Gopher tortoises also occur within the St. Lucie to Midway transmission corridor, particularly in the strip between the Indian River and the eastern marshes of the Savannas State Preserve (Foster Wheeler 2001). Indigo snakes are known to seek out gopher tortoise burrows for shelter and denning (FWS 1999) and they have been observed elsewhere on Hutchinson Island and in St. Lucie County. Presumably, the St. Lucie plant site and portions of the St. Lucie to Midway transmission corridor constitute suitable habitat, and the staff has chosen to assume that the eastern indigo snake is present in the vicinity of the site and transmission corridor. The proposed extension of the operating license would not result in any changes to the habitat at the plant site or along the transmission corridor, and in some ways may act to preserve areas of

Appendix E

**Table 1.** Species Listed as Endangered or Threatened under the Endangered Species Act That Have Been Reported to Occur Within St. Lucie County, Florida.

Scientific Name	Common Name	Federal Status <sup>(a)</sup>	Determination
<b>Reptiles</b>			
<i>Drymarchon corias couperi</i>	Eastern indigo snake	T	Not likely to adversely affect
<i>Alligator mississippiensis</i>	American alligator	T(SA)	No Effect
<b>Birds</b>			
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	T	Not likely to adversely affect
<i>Haliaeetus leucocephalus</i>	Bald eagle	T	No Effect
<i>Mycteria americana</i>	Wood stork	E	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No Effect
<i>Polyborus plancus audubonii</i>	Audubon's crested caracara	T	No Effect
<i>Rostrhamus sociabilis</i>	Everglades snail kite	E	No Effect
<b>Mammals</b>			
<i>Peromyscus polionotus niveiventris</i>	Southeastern beach mouse	T	No Effect
<i>Trichechus manatus</i>	Florida manatee	E	Not likely to adversely affect
<b>Plants</b>			
<i>Asimina tetramera</i>	Four-petal paw paw	E	Not likely to adversely affect
<i>Dicerandra immaculate</i>	Lakela's mint	E	No Effect
<i>Harrisia (Cereus) eriophorus</i>	Fragrant prickly apple	E	Not likely to adversely affect
<i>Polygala smallii</i>	Tiny milkwort	E	No Effect

(a)E = endangered, T = threatened, T(SA) = threatened due to similarity of appearance, Sources: Based on FWS [<http://verobeach.fws.gov>], FNAI [<http://www.fnai.org>], FFWCC [<http://floridaconservation.org/pubs/endanger.html>], Atlas of Florida Vascular Plants [<http://www.plantatlas.usf.edu>] and Florida Geographic Data Library [<http://www.fgd.org>] Internet Sites as of March 2002.

suitable habitat from other forms of development. Additionally, FPL staff and corridor maintenance workers are trained to recognize and avoid the eastern indigo snake, and FPL incorporates sensitive species protection in its corridor maintenance specifications. Therefore,

although the eastern indigo snake is likely to be present within the project area, the NRC staff has determined that the continued operation of St. Lucie Units 1 and 2 is not likely to adversely affect the eastern indigo snake.

2. *Alligator mississippiensis*, American alligator

American alligators are common in freshwater wetland areas throughout South Florida. They are not present at the St. Lucie plant site because all of the aquatic environments in the immediate vicinity of the St. Lucie site are either salty or brackish. Alligators may occur in the freshwater marsh areas and along the St. Lucie River, west of the plant site, within or near the transmission corridor. However, the proposed activities (continued transmission corridor maintenance) will not result in detectable modifications of these freshwater systems, and will not alter the habitat quality of the surrounding areas. Therefore, the NRC staff has determined that the proposed license renewal would have no effect on American alligators.

3. *Apelocoma coerulescens*, Florida scrub-jay

Florida scrub-jays are found in various forms of Florida scrub, including the coastal scrub found in eastern St. Lucie County. The largest populations of Florida scrub-jays are located in the central portion of the Florida Peninsula in Polk and Highlands Counties, but they are also found along both coasts, and north of Orlando in Volusia, Lake, and Marion Counties. Although it is fairly widespread throughout peninsular Florida, it has extremely specific habitat requirements, the ancient dune ecosystems, which are dominated by xeric oaks (FWS 1999). The habitat on the plant site is not typical of the Florida scrub-jay requirements. There have not been any onsite sightings of Florida scrub-jays. Scrub-jays have been observed beneath the transmission lines in the vicinity of the FEC Railroad, and there is a narrow band of vegetation between the Indian River and the Savannas State Preserve that is suitable scrub-jay habitat. There have been other periodic sightings of Florida scrub-jays within the coastal scrub areas along the west shore of the Indian River within approximately 3 km (1.8 mi) of the St. Lucie transmission line (FGDL 2002). In general, the maintenance practices used by the applicant within the St. Lucie to Midway corridor (i.e., selective removal of larger trees) may help to maintain the open scrub habitat required by the scrub-jays. The applicant has indicated that it has no plans to change the way that this or any other portion of the transmission corridor is maintained. The FPL transmission corridor database clearly indicates that the strip between the Indian River and the Savannas State Preserve is suitable habitat for Florida scrub-jays, and the maintenance is planned and performed with that in mind. Therefore, the NRC staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect Florida scrub-jays within the transmission corridor.

4. *Haliaeetus leucocephalus*, Bald eagle

Bald Eagles are known to nest approximately 2 km (1.2 mi) south of the St. Lucie transmission corridor. They usually nest in tall trees near major waterways and feed on fish, waterfowl, and occasionally carrion. Bald eagles are occasionally observed along the Indian River and near the St. Lucie plant site, but they are not regular inhabitants of these areas. According to the Southeast Region bald eagle habitat management guidelines (FWS 1987), many activities should be restricted within 450 m (1500 ft) of a nest site, but, in general, activities beyond 1.6

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km (1 mi) from the nest site will not adversely affect nesting eagles. Therefore, the NRC staff has determined that the proposed action will have no effect on bald eagles.

### 5. *Polyborus plancus audubonii*, Audubon's crested caracara

The Audubon's crested caracara is a large, long-legged, boldly patterned, non-migratory raptor. It occurs in south Texas, southwestern Arizona, and through Mexico from Baja, California, to Panama and Cuba. Only the Florida population is protected under the ESA (FWS 1999). In South Florida, the caracara occurs in dry or wet prairies with scattered cabbage palms (*Sabal palmetto*), or occasionally in lightly wooded areas. They usually build well concealed nests within cabbage palms. Much of the historical habitat areas for the caracara have been greatly modified or destroyed, but there are indications that the caracara is able to utilize improved or semi-improved pastures (FWS 1999). Caracaras are opportunistic feeders, and will consume both carrion and live prey. The species has not been reported from the plant site. Although individuals may be present in the vicinity of the transmission corridor, there are no known observations in the area. They are primarily found in the western portions of St. Lucie County. Field surveys (Foster Wheeler 2001) indicated that, at best, marginal habitat was present within the transmission corridor. Therefore, the NRC staff has determined that the proposed license renewal would have no effect on the Audubon's crested caracara.

### 6. *Mycteria americana*, Wood stork

Wood storks are a large wading bird that rely on freshwater and estuarine habitats for nesting, roosting, and foraging. They build nests in colonies, usually in medium to tall trees that occur in either swamps or on islands surrounded by open water (FWS 1999) and they often share these rookeries with other wading birds. Wood storks forage by tactolocation and, therefore, rely on prey that is relatively concentrated. The alterations of the natural hydrologic regime in south Florida has eliminated much of the seasonal hydrological variation on which wood storks historically relied, in that they exploited the fish that would become concentrated in alligator holes and other depressions during the dry season. Wood storks are observed occasionally in the vicinity of the St. Lucie plant and the transmission corridor, but there are no known rookeries within many miles of the plant site or transmission corridor. The maintenance of the plant site and transmission corridor will not adversely modify the swamps, marshes, or other freshwater habitats, nor significantly alter the surrounding upland habitats. There have been no reported mortalities of wood storks related to the operation or maintenance of the St. Lucie transmission line. Therefore, the NRC staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 will have no effect on the wood stork.

### 7. *Rostrhamus sociabilis*, Everglades snail kite

The snail kite is a medium sized raptor with very specialized dietary requirements in that it feeds almost exclusively on apple snails (*Pomacea paludsa*) which are found in freshwater marshes and the shallow, vegetated edges of lakes. Most of the snail kite populations are located on the west side of Lake Okeechobee and in the everglades west of Palm Beach, Fort Lauderdale, and Miami. However, there is one small area within St. Lucie County that has been designated as critical habitat for the snail kite. This area includes the Cloud Lake and Strazzulla Reservoirs, approximately 19 km (12 mi) northwest of the Midway substation. This species has been occasionally observed within several kilometers of the transmission corridor

(FGDL 2002) and it is possible that they may use the scattered freshwater marshes in the vicinity for foraging. However, there is no indication that this species is a regular inhabitant in the vicinity of the transmission corridor, and it was not observed during field surveys of the corridor (Foster Wheeler 2001). Therefore, the staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 will have no effect on the snail kite.

8. *Picoides borealis*, Red-cockaded woodpecker

Red-cockaded woodpeckers occur throughout the southeastern United States in pine stands or pine-dominated pine-hardwood stands with sparse understory and ample old-growth trees (FWS 1999). Population levels have drastically declined over the last century due to logging and conversion of habitat to other uses. The status of red-cockaded woodpeckers in south Florida, including St. Lucie County, is not well known (FWS 1999), but because of the species' requirements for old-growth pine-dominated forests, they are highly unlikely to occur at or near the St. Lucie plant and suitable habitat is very limited or absent from the transmission corridor (Foster Wheeler 2001) as well. Therefore, the NRC staff has determined that the proposed license renewal action will have no effect on the red-cockaded woodpecker.

9. *Peromyscus polionotus niveiventris*, Southeastern beach mouse

Southeastern beach mice inhabit the sea oats zone of the primary coastal dunes (FWS 1999). In many cases, suitable habitat for the southeastern beach mouse may only be a few meters wide, and in most cases it is highly heterogeneous. They primarily feed on the seeds of sea oats and panic grass (*Panicum amarum*), although they will eat seed of other dune species as well as insects. The current distribution is severely limited by the modification and destruction of habitat along the Florida barrier islands. The largest populations are located at Canaveral National Seashore, and other locations within Brevard County, and Indian River County has a number of populations. Individuals were captured during a survey conducted in the mid to late 1980's from St. Lucie County at Pepper Beach County Park, Fort Pierce Inlet State Recreation Area, and Surfside Beach State Park, all located at least 13 km (8.1 mi) north of the St. Lucie plant. However, more recent surveys have failed to collect any southeastern beach mice at the historic population sites within St. Lucie County, and the beach mouse may have been extirpated from the county. There have not been any specific recent surveys for this species at the St. Lucie plant site; however, if it were present, the site would certainly function as a refugium for this species, because the vegetation on the lee sides of the coastal dunes is relatively undisturbed, and human interference in this area is minimal with limited public access to the beach. Because the species is not known from the site and no indication that the species is present at the plant site or along the transmission corridor, the NRC staff has determined that the proposed license renewal will have no effect on the southeastern beach mouse.

10. *Trichechus manatus*, Florida manatee

The Florida or West Indian manatee inhabits the Indian River Lagoon and Atlantic coastal waters off Hutchinson Island. Although preferred habitats are in the Indian River Lagoon and other inland waterways, where food sources are abundant, they do occasionally travel up and down the coast near shore. The entire inland section of water known as the Indian River is designated as critical habitat for the manatee (50 CFR Part 17.108). Manatees are mostly found where food sources are abundant. Water is not withdrawn nor discharged to the Indian



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River for normal operations at St. Lucie Units 1 and 2 and there is little attached vegetation in the near-oceanshore environment adjacent to the St. Lucie plant. Manatees are present in the area known as Big Mud Creek within the plant boundaries. This area has been closed to public access since September 2001 due to NRC security concerns. Any boats that are operated within Big Mud Creek are required to travel at idle-speed and produce no wake.

There have been five occasions when manatees have entered in the intake canal. During 1991, two individuals entered the intake canal and FPL coordinated the capture with the FWS and Florida Department of Environmental Protection (predecessor to the FWCC). After capture, the animals underwent evaluation and rehabilitation and were released to the wild. Except for the first manatee, the animals were removed from the canal within a day of each first sighting. Two of these animals were taken to rehabilitation facilities prior to their release. One was treated for deep propeller wounds that it incurred prior to entering the canal and one appeared to be a small calf separated from its mother. None of the manatees appeared to have been harmed or to have died as a result of entering the intake canal. FPL procedures require coordination with the FWCC on the capture and evaluation of entrapped manatees. FPL assists the FWCC, as needed, in transporting ill or injured animals to approved rehabilitation facilities, and in releasing animals that have entered the intake canal back to the wild (Ecological Associates 2001). The last manatee to enter the intake canal from the ocean through the velocity cap was in December 1997.

In addition to potential impacts from the water intake system, the attraction to or contact with the warm waters discharged from the plant need to be considered. The discharge canal transports the heated cooling water to two discharge pipes. The pipes transport water beneath the beach and dune system back to the Atlantic Ocean. The pipes extend about 366 m (1500 ft) and 1036 m (3400 ft) offshore, and terminates in a two-port "Y" diffuser. The discharge of heated water through the Y-port and multiport diffusers ensure distribution over a wide area and rapid and efficient mixing with ambient waters (FPL 1996, Foster Wheeler 2000). Modeling studies presented by the Atomic Energy Commission (AEC) and NRC in the operating stage Final Environmental Statements indicate that the areas of the thermal plumes to the 1.1 °C (2 °F) isotherm from the St. Lucie Units 1 and 2 diffusers under typical conditions would be about 72.8 hectares (180 acres) and 70.8 hectares (175 acres), respectively (AEC 1973, NRC 1982). Considering that some of the manatee-captures have occurred during summer months, there seems to be no compelling evidence to infer that manatees congregate at, or are attracted to, the warm water discharges of the St. Lucie plant.

Direct effects of the St. Lucie plants on manatees in the Indian River Lagoon or Big Mud Creek are essentially non-existent, and access and boat speeds within Big Mud Creek are controlled to prevent adverse impacts to the manatees.

FPL has worked with the appropriate state and federal agencies to develop a system to detect and remove the infrequent manatees that may find their way into the intake canals. These procedures appear to adequately protect those manatees that enter the cooling canal system. Therefore, the NRC has determined that the proposed renewal of the operating licenses for St. Lucie Units 1 and 2 is not likely to adversely affect the West Indian manatee.

11. *Asimina tetramera*, Four-petal pawpaw

The four petal pawpaw is an aromatic shrub approximately 1 to 3 m (3 to 10 ft) tall. It occurs in sand pine scrub within the coastal dune system. It's historic range has been greatly reduced by habitat conversion, and it is now known from few locations between Palm Beach Gardens and the Savannas State Preserve in Martin County, and a few locations in northern St. Lucie County (FWS 1999). This species is found in various seral stages of sand pine scrub, and is adapted to infrequent, intense fires. This species is not likely to be found at the St. Lucie site, and along the transmission corridor, it would only be found near the west shore of the Indian River where suitable habitat is present. Although field surveys did not detect the four petal pawpaw within the transmission corridor (Foster Wheeler 2001), there appears to be a reasonable potential that this species could occur within or very near the transmission corridor on the west edge of the Indian River. However, because this area is maintained using minimal disturbance because of other known ecological sensitivities, the NRC has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect the four petal pawpaw.

12. *Dicerandra immaculate*, Lakela's mint

Lakela's mint is a small aromatic shrub that inhabits scrub areas of the Atlantic coastal ridge (FWS 1999). It occupies sites with varying amounts of organic litter, from partly covered to bare sand. This species is currently known from approximately six sites between Fort Pierce and Vero Beach, and at Hobe Sound National Wildlife Refuge, where it was introduced in 1991 and 1992 (FWS 1999). Although suitable habitat exists in the vicinity of the transmission corridor at the western shore of the Indian River, none were found during field surveys (Foster Wheeler 2001). Because all of the natural populations are found at least eight to ten miles from the transmission corridor, it is unlikely that individuals would be present within the small area of suitable habitat included in the transmission corridor. Therefore, the NRC has determined that renewal of the operating licenses for St. Lucie Units 1 and 2 will have no effect on Lakela's mint.

13. *Hamisia (Cereus) eriophorus*, Fragrant prickly apple

The fragrant prickly apple is a solitary tree cactus that is endemic to St. Lucie County, and is known only from approximately 11 small, disjunct sites, all along the Atlantic Coastal Ridge on the western shore of the Indian River (FWS 1999). The St. Lucie to Midway transmission corridor crosses this ridge between the Indian River and the marshes on the east side of the Savannas State Preserve. Several of the known populations are located within 2 to 3 km (1.2 to 1.9 mi) of the St. Lucie to Midway transmission corridor but none of the known populations are close enough to the transmission corridor to be directly affected by maintenance of the corridor. Although field surveys of the corridor did not reveal any fragrant prickly apple specimens (Foster Wheeler 2001), there appears to be a reasonable potential that the fragrant prickly apple could occur within or very near the transmission corridor on the west edge of the Indian River. However, because this area is maintained using minimal disturbance because of other known ecological sensitivities, the NRC has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect the fragrant prickly apple.

14. *Polygala smallii*, Tiny milkwort

The tiny milkwort is a small, short lived, herbaceous species that is restricted to sand pockets within pine rocklands, open sand pine scrub, slash pine, high pine, and well drained coastal spoil (FWS 1999). It requires high light levels, and little to no organic litter accumulation. All known populations are within 9.7 km (6 mi) of the Atlantic coast between Miami-Dade County

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and St. Lucie County. The only known population in St. Lucie County is located approximately 6.7 km (4.3 miles) south of the St. Lucie to Midway transmission line. Field surveys of the corridor did not detect the presence of the tiny milkwort (Foster Wheeler 2001). Because the only known population in St. Lucie County is a considerable distance from the transmission corridor, and no individuals were observed during field surveys of the affected area, the NRC has determined that the proposed renewal of the operating licenses for St. Lucie Units 1 and 2 will have no effect on the tiny milkwort.

In addition to the species listed in Table 1, there are several other Federally listed species that have been reported from the counties surrounding St. Lucie county. These conceivably could occur in the vicinity of the St. Lucie plant or associated transmission line. These species include Atlantic salt marsh snake (*Nerodia fasciata taeniata*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), piping plover (*Charadrius melodus*), Florida panther (*Felis concolor coryi*), Perforate reindeer lichen (*Cladonia perforata*), and beach clustervine (*Jacquemontia reclinata*). Because there is no clear indication that these species are near the plant or associated transmission line, the NRC has determined that the proposed action would have no effect on those species.

## REFERENCES

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2. Ecological Associates, Inc., *Survey of Aquatic Environments Potentially Affected by the Operation of the St. Lucie Power Plant, Hutchinson Island, Florida*. Prepared for Florida Power & Light Company, Jensen Beach, FL by Ecological Associates, Inc., Jensen Beach, FL, 2001.
3. Florida Natural Areas Inventory (FNAI), 2002. FNAI website: <http://www.fnai.org>
4. Florida Fish and Wildlife Conservation Commission (FFWCC), 2002. FFWC endangered species website: <http://floridaconservation.org/pubs/endanger.html>
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6. Florida Power and Light (FPL), Applicants Environmental Report, Operating License Renewal Stage, Florida Power and Light Company, Juno Beach, FL, 2001.
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8. Foster-Wheeler Environmental Corporation, *Annual Operation & Maintenance Status Report (1999-2000) for FPL St. Lucie Power Plant Unit 1 & Unit 2*, Remedial Action, Suart, FL, August 3, 2000.
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10. U.S. Nuclear Regulatory Commission (NRC), *Final Environmental Statement Related to the Operation of St. Lucie Plant, Unit No. 2; Florida Power & Light Company, Orlando Utilities Commission of the City of Orlando, Florida*, Docket No. 50-389, NUREG-0842, Office of Nuclear Reactor Regulation, Washington, D.C., April 1982.
11. University of South Florida, *Atlas of Florida Vascular Plants, 2002*. [<http://www.plantatlas.usf.edu>]
12. U.S. Fish And Wildlife Service (FWS), *Habitat Management Guidelines for the Bald Eagle in the Southeast Region, 3<sup>rd</sup> Revision*, Atlanta, GA., 9 pp., 1987.

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13. U.S. Fish And Wildlife Service (FWS), South Florida Multi-Species Recovery Plan, Atlanta, GA, 2172 pp., 1999a..
14. U.S. Fish And Wildlife Service (FWS), 2002b, Vero Beach Ecological Services website: <http://verobeach.fws.gov>



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
 South Florida Ecological Services Office  
 1339 20<sup>th</sup> Street  
 Vero Beach, Florida 32960



October 4, 2002

Pao-Tsin Kuo  
 Licence Renewal and Environmental Impacts  
 Division of Regulatory Improvement Program  
 Office of Nuclear Reactor Regulation  
 United States Nuclear Regulatory Commission  
 Washington, D.C. 20555-0001

Service Log No.: 4-1-02-I-1959  
 Application No.: MB3407 and MB3401  
 Dated: July 24, 2002  
 Applicant: Florida Power and Light  
 County: St. Lucie

Dear Mr. Kuo

The Fish and Wildlife Service (Service) has reviewed the plans, maps, and other information provided by the Nuclear Regulatory Commission (NRC) for the project referenced above, including the conservation measures proposed to reduce adverse effects to Federally-listed species and their designated critical habitat in St. Lucie County, Florida. These comments are provided under the provisions of section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

PROJECT DESCRIPTION

The proposed action is the granting of a renewal of the current operating licenses for St. Lucie Units 1 and 2 that would allow these units to continue operations for an additional 20 years beyond their current license terms. The license for Unit 1 is currently set to expire in March 2016, and the Unit 2 License will expire in April 2023. The proposed license renewal will, therefore, extend the license terms for Unit 1 until 2036 and for Unit 2 until 2043. The extension of the license terms will result in the continuation of the operation and maintenance of the nuclear power reactors, the cooling water intake and discharge structures and canals, and support facilities at the plant site. No changes are expected in terms of ecological or environmental impacts of the present operations. In addition, the renewal of the operating license is not anticipated to require any significant new construction or modification of existing terrestrial or aquatic habitats. The project is located 4.5 miles east of the city of Port St. Lucie on South Hutchinson Island, at 27° 21' 24" North latitude and 80° 14' 43" West longitude, St. Lucie County, Florida. The St. Lucie site occupies approximately 457 ha (1,130 ac), of which

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approximately one-third has been significantly modified for the construction and operation of the power production reactors, intake and discharge canals, switchyard, and support facilities.

If the license renewal is granted, the transmission lines and corridor that connect St. Lucie Units 1 and 2 to the regional transmission grid will continue to be operated and maintained as they have for the last 25 years. Florida Power and Light (FPL) maintains the Midway Corridor using a combination of trimming, mowing, and herbicide application. When required, FPL trims trees at a height of 22.5 m (14 ft) to maintain clearances below the conductors. Tree trimming is typically needed only at the midspan of the transmission lines between the towers. In open areas, FPL usually follows a five-year mowing cycle. Herbicides are used both for spot treatment of individual trees and occasionally as broadcast applications to control exotic grasses. FPL uses only non-restricted use herbicides, which are applied under the supervision of licensed pesticide applicators. FPL uses a computer database to prepare management prescriptions for each section of transmission line corridor that incorporates known management concerns and environmental sensitivities, including rare species.

### THREATENED AND ENDANGERED SPECIES

There are 14 species listed as threatened or endangered under the ESA within St. Lucie County. There are no species currently proposed for formal listing or considered candidates for listing in St. Lucie County. The NRC has determined that the proposed action will either have "no effect" or is "not likely to adversely affect" the endangered or threatened species in the vicinity of the St. Lucie plant and associated transmission corridor. The Service concurs with NRC's determinations for the following species within the action area of the proposed relicensing:

1. *Drymarchon corias couperi*, Eastern indigo snake

The eastern indigo snake has not been observed on the St. Lucie site or along the transmission corridor, but individuals have been observed elsewhere on Hutchinson Island (FPL 2001). Presumably, the St. Lucie plant site and portions of the St. Lucie to Midway transmission corridor constitute suitable habitat, and the staff has chosen to assume that the eastern indigo snake is present in the vicinity of the site and transmission corridor. The proposed extension of the operating license would not result in any changes to the habitat at the plant site or along the transmission corridor, and in some ways may act to preserve areas of suitable habitat from other forms of development. Additionally, FPL staff and corridor maintenance workers are trained to recognize and avoid the eastern indigo snake, and FPL incorporates sensitive species protection in its corridor maintenance specifications. Therefore, although the eastern indigo snake is likely to be present within the project area, the NRC staff has determined that the continued operation of St. Lucie Units 1 and 2 is not likely to adversely affect the eastern indigo snake.

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2. *Alligator mississippiensis*, American alligator

Although American alligators are common in freshwater wetland areas throughout South Florida, they are not present at the St. Lucie plant site. Alligators may occur in the freshwater marsh areas and along the St. Lucie River, west of the plant site, within or near the transmission corridor. However, the proposed activities (continued transmission corridor maintenance) will not result in detectable modifications of these freshwater systems and will not alter the habitat quality of the surrounding areas. Therefore, the NRC staff has determined that the proposed license renewal would have no effect on American alligators.

3. *Aphelocoma coerulescens*, Florida scrub-jay

The habitat on the plant site does not include Type I or Type II habitat typical of the Florida scrub-jay requirements, and no Florida scrub-jays have been documented on the plant site. Scrub-jays have been observed beneath the transmission lines in the vicinity of the Florida East Coast Railroad, and there is a narrow band of vegetation between the Indian River and the Savannas State Preserve that is suitable scrub-jay habitat. There have been other periodic sightings of Florida scrub-jays within the coastal scrub areas along the west shore of the Indian River within approximately 3 km (1.8 miles) of the St. Lucie transmission line (University of Florida 2002). In general, the maintenance practices used by the applicant within the St. Lucie to Midway corridor (i.e., selective removal of larger trees) may help to maintain the open scrub habitat required by the scrub-jays. The applicant has indicated that it has no plans to change the way that this or any other portion of the transmission corridor is maintained. The FPL transmission corridor database clearly indicates that the strip between the Indian River and the Savannas State Preserve is suitable habitat for Florida scrub-jays, and corridor maintenance is planned and performed with this in mind. Therefore, the NRC staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect Florida scrub-jays within the transmission corridor.

4. *Haliaeetus leucocephalus*, Bald eagle

Bald eagles are known to nest approximately 2 km (1.2 mi) south of the St. Lucie transmission corridor. Bald eagles are occasionally observed along the Indian River and near the St. Lucie plant site, but they are not regular inhabitants of these areas. According to the Southeast Region bald eagle habitat management guidelines (FWS 1987), many activities should be restricted within 450 m (1,500 ft) of a nest site, but, in general, activities beyond 1.6 km (1 mi) from the nest site will not adversely affect nesting eagles. Therefore, the NRC staff has determined that the proposed action will have no effect on bald eagles.



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### 5. *Polyborus plancus audubonii*, Audubon's crested caracara

The Audubon's crested caracara has not been documented on the plant site. Although individuals may be present in the vicinity of the transmission corridor, there are no known observations in the area. They are primarily found in the western portions of St. Lucie County. Field surveys (Foster Wheeler 2001) indicated that, at best, marginal habitat was present within the transmission corridor. Therefore, the NRC staff has determined that the proposed license renewal would have no effect on the Audubon's crested caracara.

### 6. *Mycteria americana*, Wood stork

Wood storks are observed occasionally in the vicinity of the St. Lucie plant and the transmission corridor. However, the nearest wood stork rookery is 8.5 miles southwest of the plant site and 6.0 miles south of the transmission corridor. The maintenance of the plant site and transmission corridor will not adversely modify the swamps, marshes, or other freshwater habitats, nor significantly alter the surrounding upland habitats. There have been no reported mortalities of wood storks related to the operation or maintenance of the St. Lucie transmission line. Therefore, the NRC staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 will have no effect on the wood stork.

### 7. *Rostrhamus sociabilis*, Everglades snail kite

Snail kites have been occasionally observed within several kilometers of the transmission corridor (University of Florida 2002), and it is possible that they may use the scattered freshwater marshes in the vicinity for foraging. However, there is no indication that this species is a regular inhabitant in the vicinity of the transmission corridor, and it was not observed during field surveys of the corridor (Foster Wheeler 2001). Therefore, the staff has determined that the proposed license renewal for St. Lucie Units 1 and 2 will have no effect on the snail kite.

### 8. *Picoides borealis*, Red-cockaded woodpecker

The status of red-cockaded woodpeckers in south Florida, including St. Lucie County, is not well known (Service 1999), but because of the species' requirements for old-growth pine-dominated forests, they are highly unlikely to occur at or near the St. Lucie plant, and suitable habitat is very limited or absent from the transmission corridor (Foster Wheeler 2001) as well. Therefore, the NRC staff has determined that the proposed license renewal action will have no effect on the red-cockaded woodpecker.

### 9. *Peromyscus polionotus niveiventris*, Southeastern beach mouse

Southeastern beach mice were captured during a survey conducted in the mid to late 1980's from St. Lucie County at Pepper Beach County Park, Fort Pierce Inlet State Recreation Area, and

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Surfside Beach State Park, all located at least 13 km (8.1 mi) north of the St. Lucie plant. However, more recent surveys have failed to collect any southeastern beach mice at the historic population sites within St. Lucie County, and the beach mouse may have been extirpated from the county. There have not been any recent surveys for this species at the St. Lucie plant site; however, if it were present, the site would certainly function as a refugium for this species, because the vegetation on the lee sides of the coastal dunes is relatively undisturbed, and human interference in this area is minimal with limited public access to the beach. Because the species is not known from the site and no indication that the species is present at the plant site or along the transmission corridor, the NRC staff has determined that the proposed license renewal will have no effect on the southeastern beach mouse.

#### 10. *Trichechus manatus*, West Indian manatee

The West Indian manatee inhabits the Indian River Lagoon and Atlantic coastal waters off Hutchinson Island. Although preferred habitats are in the Indian River Lagoon and other inland waterways where food sources are abundant, they do occasionally travel up and down the coast near shore. The entire inland section of water known as the Indian River is designated as critical habitat for the manatee (50 CFR Part 17.108). Water is not withdrawn nor discharged to the Indian River for normal operations at St. Lucie Units 1 and 2, and there is little attached vegetation in the near-oceanshore environment adjacent to the St. Lucie plant. Manatees are present in the area known as Big Mud Creek within the plant boundaries. This area has been closed to public access since September 2001 due to NRC security concerns. Any boats that are operated within Big Mud Creek are required to travel at idle-speed and produce no wake.

There have been five occasions when manatees have entered in the intake canal. During 1991, two individuals entered the intake canal and FPL coordinated the capture with the Service and Florida Fish and Wildlife Conservation Commission (FWC). After capture, the animals underwent evaluation and rehabilitation and were released to the wild. Except for the first manatee, the animals were removed from the canal within a day of each first sighting. Two of these animals were taken to rehabilitation facilities prior to their release. One was treated for deep propeller wounds that it incurred prior to entering the canal and one appeared to be a small calf separated from its mother. None of the manatees appeared to have been harmed or to have died as a result of entering the intake canal. FPL procedures require coordination with the FWC on the capture and evaluation of entrapped manatees. FPL assists the FWC, as needed, in transporting ill or injured animals to approved rehabilitation facilities, and in releasing animals that have entered the intake canal back to the wild (Ecological Associates 2001). The last manatee to enter the intake canal from the ocean through the velocity cap was in December 1997.

In addition to potential impacts from the water intake system, the attraction to or contact with the warm waters discharged from the plant need to be considered. The discharge canal transports the heated cooling water to two discharge pipes. The pipes transport water beneath the beach and dune system back to the Atlantic Ocean. The pipes extend about 450 m (1,500 ft) and

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1,036 m (3,400 ft) offshore, and terminate in a two-port "Y" diffuser. The discharge of heated water through the Y-port and multiport diffusers ensure distribution over a wide area and rapid and efficient mixing with ambient waters (FPL 1996, Foster Wheeler 2000). Modeling studies presented by the Atomic Energy Commission (AEC) and NRC in the operating stage Final Environmental Statements indicate that the areas of the thermal plumes to the 1.1 °C (2 °F) isotherm from the St. Lucie Units 1 and 2 diffusers under typical conditions would be about 72.8 hectares (180 acres) and 70.8 hectares (175 acres), respectively (AEC 1973, NRC 1982). Considering that some of the manatee-captures have occurred during summer months, there seems to be no compelling evidence to infer that manatees congregate at, or are attracted to, the warm water discharges of the St. Lucie plant.

Direct effects of the St. Lucie plants on manatees in the Indian River Lagoon or Big Mud Creek are essentially non-existent, and access and boat speeds within Big Mud Creek are controlled to prevent adverse impacts to the manatees.

FPL has worked with the appropriate state and federal agencies to develop a system to detect and remove the infrequent manatees that may find their way into the intake canals. These procedures appear to adequately protect those manatees that enter the cooling canal system. Therefore, the NRC has determined that the proposed renewal of the operating licenses for St. Lucie Units 1 and 2 is not likely to adversely affect the West Indian manatee.

### 11. *Asimina tetramera*, Four-petal pawpaw

The four petal pawpaw occurs in sand pine scrub within the coastal dune system. Its historic range has been greatly reduced by habitat conversion, and it is now known from few locations between Palm Beach Gardens and the Savannas State Preserve in Martin County, and a few locations in northern St. Lucie County (Service 1999). This species is not likely to be found at the St. Lucie site, and along the transmission corridor, it would only be found near the west shore of the Indian River where suitable habitat is present. Although field surveys did not detect the four petal pawpaw within the transmission corridor (Foster Wheeler 2001), there appears to be a reasonable potential that this species could occur within or very near the transmission corridor on the west edge of the Indian River. However, because this area is maintained using minimal disturbance because of other known ecological sensitivities, the NRC has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect the four petal pawpaw.

### 12. *Dicerandra immaculate*, Lakela's mint

Lakela's mint is a small aromatic shrub that inhabits scrub areas of the Atlantic coastal ridge (Service 1999). This species is currently known from approximately six sites between Fort Pierce and Vero Beach, and at Hobe Sound National Wildlife Refuge, where it was introduced in 1991 and 1992 (Service 1999). Although suitable habitat exists in the vicinity of

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the transmission corridor at the western shore of the Indian River, none were found during field surveys (Foster Wheeler 2001). Because all of the natural populations are found at least eight to ten miles from the transmission corridor, it is unlikely that individuals would be present within the small area of suitable habitat included in the transmission corridor. Therefore, the NRC has determined that renewal of the operating licenses for St. Lucie Units 1 and 2 will have no effect on Lakela's mint.

13. *Harrisia (Cereus) eriophorus*, Fragrant prickly apple

The fragrant prickly apple is a solitary tree cactus that is endemic to St. Lucie County and is known only from approximately 11 small, disjunct sites, all along the Atlantic Coastal Ridge on the western shore of the Indian River (Service 1999). The St. Lucie to Midway transmission corridor crosses this ridge between the Indian River and the marshes on the east side of the Savannas State Preserve. Several of the known populations are located within 2 to 3 km (1.2 to 1.9 mi) of the St. Lucie to Midway transmission corridor, but none of the known populations are close enough to the transmission corridor to be directly affected by maintenance of the corridor. Although field surveys of the corridor did not reveal any fragrant prickly apple specimens (Foster Wheeler 2001), there appears to be a reasonable potential that the fragrant prickly apple could occur within or very near the transmission corridor on the west edge of the Indian River. However, because this area is maintained using minimal disturbance because of other known ecological sensitivities, the NRC has determined that the proposed license renewal for St. Lucie Units 1 and 2 is not likely to adversely affect the fragrant prickly apple.

14. *Polygala smallii*, Tiny milkwort

All known populations of the tiny milkwort are within 9.7 km (6 mi) of the Atlantic coast between Miami-Dade County and St. Lucie County. The only known population in St. Lucie County is located approximately 6.7 km (4.3 miles) south of the St. Lucie to Midway transmission line. Field surveys of the corridor did not detect the presence of the tiny milkwort (Foster Wheeler 2001). Because the only known population of tiny milkworts in St. Lucie County is a considerable distance from the transmission corridor, and no individuals were observed during field surveys of the affected area, the NRC has determined that the proposed renewal of the operating licenses for St. Lucie Units 1 and 2 will have no effect on the tiny milkwort.

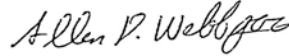
In conclusion, if modifications are made to the project, if additional information involving potential effects to listed species becomes available, if a new species is listed, or if designated critical habitat may be affected by the project, re-initiation of consultation may be necessary.

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Pao-Tsin Kuo  
October 4, 2002  
Page 8

Thank you for your cooperation and effort in protecting threatened and endangered species. If you have any questions please contact Chuck Kelso, Fish and Wildlife Biologist, at (772) 562-3909, extension 241.

Sincerely yours,



Linda S. Ferrell  
Assistant Field Supervisor  
South Florida Ecological Services Office

cc:  
EPA, West Palm Beach, FL (Richard Harvey)  
FWC (BPSM), Tallahassee, FL (Mary Duncan)  
FWC, Vero Beach, FL  
FWC, Tequesta, FL  
NMFS, St. Petersburg, FL  
EPA, West Palm Beach, FL  
SFWMD, Ft. Myers, FL (Karen Johnson)  
St. Lucie County Board of County Commissioners, Ft. Pierce, FL (Doug Anderson)

June 3, 2002

Dr. Joseph E. Powers, Acting Regional Administrator  
National Marine Fisheries Service  
Southeast Regional Office (SERO)  
9721 Executive Center Drive North  
St. Petersburg, FL 33702

**SUBJECT: ENVIRONMENTAL REVIEW ON FLORIDA POWER AND LIGHT COMPANY'S APPLICATION FOR A 20-YEAR RENEWAL OF THE OPERATING LICENSES FOR ST. LUCIE, UNITS 1 AND 2**

Dear Dr. Powers:

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Florida Power and Light Company (FPL) for the renewal of the operating licenses for St. Lucie Nuclear Plant (St. Lucie), Units 1 and 2, located on Hutchinson Island, Florida. The operating license for St. Lucie Unit 1 expires in 2016 and Unit 2 in 2023. The NRC is preparing a site-specific supplement to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed action. As part of the action, the NRC evaluates potential impacts to threatened and endangered species under the Endangered Species Act (ESA).

The proposed action would include use and continued maintenance of existing facilities and transmission lines and FPL has indicated that the proposed action would not result in new construction or habitat disturbance. St. Lucie and the associated transmission corridor that is under review as part of the license renewal application is located in St. Lucie County, Florida. The transmission corridor is approximately 17.7 km (11 mi) long and varies from 200 to 250 m (660 to 813 ft) in width. The plant uses once-through cooling water from the Atlantic Ocean to remove waste heat from the facility. Ocean water is drawn through three offshore intake structures into an intake canal that leads to the plant. The heated water is discharged back to the Atlantic Ocean through offshore diffusers. The Atlantic Ocean in the vicinity of the plant is considered part of the aquatic environment of interest.

On May 4, 2001, the National Marine Fisheries Service (NMFS) issued a biological opinion (F/SER/2000/01394) related to the operation of the St. Lucie plant on federally protected marine species. The May 4, 2001, biological opinion (Opinion) provided a list of protected species under the jurisdiction of NMFS known to occur in the vicinity of St. Lucie. The Opinion concluded that species of large whales and Johnson's seagrass (and its critical habitat), which are protected under the Endangered Species Act, are not likely to be affected by the continued operation of the plant. The Opinion also identified five species of sea turtle known to inhabit the waters in the vicinity of the plant that may be affected by plant operation. However, the Opinion concluded that the continued operation of the circulating seawater cooling system at St. Lucie is not likely to jeopardize the continued existence of the loggerhead (*Caretta caretta*), Kemp's ridley turtle (*Lepidochelys kempii*), green turtle (*Chelonia mydas*), leatherback turtle

J. Powers

- 2 -

*(Dermochelys coriacea)*, and hawksbill turtle (*Eretmochelys imbricata*), in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA). On June 8, 2001, by letter to Mr. R. Hoffman, the NRC confirmed the discussions of a telephone conference call clarifying certain provisions of the Incidental Take Statement (ITS) contained in the May 4, 2001, Opinion. In its reply to the June 8, 2001, letter, NMFS responded to each of the six issues identified in the NRC's letter. Based on the May 4, 2001, Opinion and on subsequent correspondence, the NRC has accepted and implemented the NMFS position on the potential for impact of plant operations on the aquatic species protected under the ESA, and we believe that no additional consultation, either formal or informal, is necessary at this time.

We understand that FPL is planning to make modifications to their intake canal and existing turtle excluder net near the A1A Bridge. These modifications have been discussed with NMFS (Mr. R. Hoffman of your staff). We believe that the proposed modifications will further reduce sea turtle morbidity and mortality that could result from plant operation.

During the course of the NRC review for the proposed license renewal action the staff did identify one requirement in the Opinion, as clarified by your October 8, 2001 letter, that we want to assure that we are interpreting correctly. In your correspondence dated October 8, 2001, in your response to our question four, you state that "... if the number of loggerhead and green turtles injured or killed as a result of plant operation were greater than 1% of the total number of loggerhead and green turtles taken by the end of said year", then reinitiation of formal consultation is required. Based on this statement the NRC will reinitiate consultation if the number of loggerheads and green turtles injured or killed in a calendar year is greater than one percent (rounded up to the next whole number), of the total green and loggerhead turtles taken in that calendar year. We emphasize that the action level is "greater than" rather than "greater than or equal to".

Although not required for our record of decision for the proposed license renewal action, we are requesting confirmation that no additional consultation related to federally protected species under the jurisdiction of NMFS is necessary at this time. We believe that the "Terms and Conditions" section of the Opinion will provide adequate limits and controls on the licensee to assure a continued "no jeopardy" conclusion relative to the five species of sea turtles known to inhabit the waters near the plant. Furthermore, the NRC staff recognizes that future informal and formal consultations are likely over the continued operation of the plant, even during the period of initial licensing, as changes occur in the sea turtle populations and local habitat. We are committed to continue to work closely with your staff in the protection of species under your jurisdiction. Additionally, if we have interpreted incorrectly the action level that requires reinitiation of consultation for green and loggerhead turtles we do need written clarification on the issue.

J. Powers

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If you have any comments or questions, please contact Dr. Michael T. Masnik, Senior Project Manager, at (301) 415-1191 or MTM2@NRC.GOV.

Sincerely,  
**Original Signed By: PTKuo**  
Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-386

cc: See next page



Appendix E



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
9721 Executive Center Drive North  
St. Petersburg, FL 33702  
(727) 570-5312; FAX 570-5517  
<http://caldera.sero.nmfs.gov>

JUL 30 2002

F/SER3:BH:mdh

*50-335/389*

Mr. Pao-Tsin Kuo  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington D.C. 20555-0001

Dear Mr. Kuo:

This is in response to your letter dated June 3, 2002, regarding Florida Power and Light Company's (FPL) application for a 20-year renewal of the operating licenses for the St. Lucie Power Plant's units 1 and 2. This would allow the continued operation and maintenance of existing facilities and transmission lines, including the cooling water intake system for these units beginning in 2016 and 2023 respectively. FPL has indicated that the proposed action would not result in new construction or habitat disturbance. FPL's St. Lucie Power Plant is located in St. Lucie County, Florida. The National Marine Fisheries Service (NOAA Fisheries) consultation number for this project is I/SER/2002/00628; please refer to this number in future correspondence on this project.

NOAA Fisheries in a biological opinion (Opinion) dated May 4, 2001, determined that the use of the cooling water intake system for both units was likely to adversely affect loggerhead, green, Kemp's ridley, hawksbill, and leatherback sea turtles. In its May 4, 2001, Opinion NOAA Fisheries determined that the effects associated with the cooling water intake system were not likely to jeopardize the continued existence of the five species of sea turtles listed above over a ten year period. However, NOAA Fisheries determined take of these species was likely and issued an incidental take statement (ITS) with its Opinion. The ITS also contained mandatory terms and conditions to minimize the effects of this take. Because the proposed action is so far in the future, NOAA Fisheries does not believe additional consultation is required at this time. The current Opinion is valid until May 4, 2011, at which time consultation should be reinitiated and another Opinion issued. Consultation should also be reinitiated if new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat in a manner or to an extent not previously considered, if a new species is listed or critical habitat designated that may be affected by the identified action or if the plant meets or exceeds the current ITS levels.

Your letter mentions our letter dated June 8, 2001, and the clarification we gave regarding the incidental take of loggerhead and green turtles. In this letter we state, "the ITS limits for injured and dead loggerhead and green turtles are based on a percentage (1%) of the total loggerhead and

*Add: Pao-Tsin Kuo*



*A089*

green turtles taken in one year; therefore, reinitiation would have to take place if the number of loggerhead and green turtles injured or killed as a result of plant operations were greater than 1% of the total number of loggerhead and green turtles taken by the end of said year"; however, this is incorrect. Consultation should be reinitiated if take is *greater than or equal to* that of the May 4, 2001, Opinion. We apologize for this error and any inconvenience it may have caused.

Your letter also indicates that FPL is planning a separate action that would make modifications to the intake canal and its existing turtle excluder net. Please send the plans for this modification to us for review and consultation under section 7 of the Endangered Species Act (ESA).

If you have any questions about this ESA section 7 consultation, please contact Mr. Robert Hoffman, fishery biologist, at the number listed above.

Sincerely yours,



for Joseph E. Powers, Ph.D.  
Acting Regional Administrator

cc: F/PR3  
F/SER43 - Mike Johnson

O:\section7\informal\stlucie.wpd  
File: 1514.22f.1  
Ref: I/SER/2002/00628

Appendix E

August 23, 2002

Joseph E. Powers, Ph. D.  
Acting Regional Administrator  
National Marine Fisheries Service  
Southeast Regional Office  
9721 Executive Center Drive North  
St. Petersburg, FL 33702

SUBJECT: REQUEST FOR CONSULTATION UNDER SECTION 7 OF THE  
ENDANGERED SPECIES ACT FOR THE ST. LUCIE NUCLEAR PLANT

Dear Dr. Powers:

We have received your letter of July 30, 2002, regarding the incidental take of protected sea turtles at the St. Lucie nuclear plant located on Hutchinson Island, St. Lucie County, Florida. Based on the clarification provided in your July 30, 2002, letter to the incidental take statement contained in your May 4, 2001, Biological Opinion for the St. Lucie Plant, we request reinitiation of consultation regarding the incidental capture of green and loggerhead turtles (*Chelonia mydas* and *Caretta caretta*). Our decision to request reinitiation was communicated by phone to Mr. Robert Hoffman of your staff by Dr. Michael Masnik, NRC, on August 13, 2002.

Within the next couple of months the NRC staff plans to provide the National Marine Fisheries Service with the facts surrounding the green and loggerhead turtle mortalities attributable to plant operation that occurred during calendar year 2001. Additionally, as requested by your letter dated July 30, 2002, the NRC staff will provide you with the details of Florida Power and Light Company's plans to modify the St. Lucie intake canal and the existing turtle excluder (block) net. The planned modifications should result in a reduction of sea turtle mortalities.

If you have any comments or questions, please contact me at (301) 415-3974 or Dr. Masnik at (301) 415-1191.

Sincerely,  
*IRAI*

Brendan T. Moroney, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

cc: See next page

August 23, 2002

Mr. J. A. Stall  
Senior Vice President, Nuclear and  
Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

SUBJECT: REINITIATION OF CONSULTATION UNDER SECTION 7 OF THE  
ENDANGERED SPECIES ACT FOR THE ST. LUCIE NUCLEAR PLANT  
(TAC NOS. MB5940 AND MB5941)

Dear Mr. Stall:

In a letter dated July 30, 2002 (enclosed), the National Marine Fisheries Service (NMFS), Southeast Regional Office, provided further clarification on the incidental take statement in the May 4, 2001, Biological Opinion for the St. Lucie plant. Based on the information contained in the letter, the U.S. Nuclear Regulatory Commission (NRC) has decided to reinstate consultation with respect to green and loggerhead turtles (*Chelonia mydas* and *Caretta caretta*) incidently captured in the intake canal of the St. Lucie plant.

In order to conduct the consultation with NMFS, the NRC staff needs detailed information on the six green and loggerhead mortalities that occurred during Calendar year 2001. Information required, but not limited to, the following is requested: date, time, and location of discovery, condition of the specimen, general plant operating conditions during and immediately before capture, any unusual conditions in the intake canal or the condition of the block net, disposition of the specimen, any written notification documents provided to State or Federal authorities, and any conclusions on the probable cause of death.

Additionally, the NMFS letter also requested information regarding the planned modifications to the intake canal and the existing turtle excluder (block) net. The NRC staff requests a detailed description of the planned changes, a discussion as to why the changes are being made, and what the impact of the proposed changes might be on future turtle mortality rates and why.

It is the NRC staff's intent to prepare a report providing NMFS with detailed information regarding the six sea turtle mortalities that were considered causally related to St. Lucie plant operation during calendar year 2001, and a detailed description of your planned modifications to the intake canal and the turtle excluder net. The NRC staff expects to complete the report by November 1, 2002. We request a response to the above information request by September 30, 2002.

If you have any questions, please contact me at (301) 415-3974.

Sincerely,  
*/RAI*  
Brendan T. Moroney, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure: NMFS letter dated July 30, 2002

cc w/enclosure: See next page

## Appendix E

February 10, 2003

Dr. Roy Crabtree  
Regional Administrator  
National Marine Fisheries Service  
Southeast Regional Office  
9721 Executive Center Drive North  
St. Petersburg, FL 33702

SUBJECT: INFORMAL SECTION 7 CONSULTATION FOR ST. LUCIE NUCLEAR PLANT

Dear Dr. Crabtree:

In a letter dated August 23, 2002, the NRC staff requested reinitiation of consultation for the green turtle (*Chelonia mydas*) and the loggerhead turtle (*Caretta caretta*) under Section 7 of the Endangered Species Act of 1973 for the St. Lucie nuclear plant, located on Hutchinson Island, St. Lucie County, Florida. The St. Lucie plant is owned and operated by the Florida Power and Light Company (FP&L, the licensee). The request for reinitiation of consultation was based on the reported causally related mortality rate for these two species during calendar year 2001. In our August 23, 2002, letter, we committed to provide you with the facts surrounding the 2001 green and loggerhead turtle mortalities attributed to plant operation. Additionally, we agreed to provide you with the details of FP&L's plans to modify the St. Lucie intake canal and the 12.7-cm (5-inch) turtle block (barrier) net.

Concurrent with our request for reinitiation of consultation, the NRC staff requested information from the licensee related to the 2001 causally related mortalities of green and loggerhead turtles as well as details related to the modification of the intake canal and turtle block net. The licensee provided the requested information in a letter dated September 20, 2002. A copy of the licensee's September 20, 2002, letter is enclosed for your information. In 2001, the licensee recovered 592 green and loggerhead (321 green and 271 loggerhead) sea turtles from the intake canal. Of the 592 total recoveries, the licensee reported six turtle mortalities (five green and one loggerhead) in the intake canal, attributable to plant operations. Details of the six mortalities, provided in the licensee's September 20, 2002, letter are summarized below.

On March 30, 2001, a moribund green turtle was recovered from the 12.7-cm (5-inch) block net. Although a necropsy was performed, the results were inconclusive. The circumstances of the recovery did not indicate a cause of death. Because no obvious cause of death was apparent, the licensee conservatively attributed the mortality to plant operation. In early November 2001, four moribund turtles (three green and one loggerhead) were recovered from the 12.7-cm (5-inch) net. The four mortalities occurred over two days, during a period of high algae and debris loading of the barrier net caused by the passage of Hurricane Michelle south of the plant. The licensee attributed net deformation and increased flow rates through the net, due to the high levels of debris in the water column, as the possible cause of the turtle mortality. The debris loading of the net became so severe that the net had to be lowered for a period of time to avoid destruction of the net. In late November 2001, an additional weakened, underweight turtle (green) was recovered from the Unit 1 intake well near the plant. The turtle died within

hours after recovery. The licensee believed that this turtle bypassed the block nets during the period of high debris flow and could have bypassed the net when it was lowered. Once beyond the block nets, there was no opportunity for escape from the intake canal and the turtle was eventually drawn into the plant intake structure. Five out of the six turtle mortalities in 2001 were associated with the November debris event. The NRC staff finds that the high turtle mortality during 2001 was substantially related to the condition and design of the block net system.

In 2002, the licensee initiated additional activities in the intake canal to further reduce the possibility of future turtle mortalities. The intake canal was dredged between the easternmost headwall region and the Route A1A Bridge. By increasing the cross-sectional area of the canal, the water flow rate was reduced in the area of the turtle block nets. The lower flow rate in the vicinity of the block net should reduce the likelihood of turtles being trapped against the nets. The 12.7-cm (5-inch) mesh net was replaced with a new 12.7-cm (5-inch) net made of a more durable material with a UV-resistant coating that has a smooth surface resistant to fraying. These qualities should reduce net deformation and fouling by debris and algae. A sediment removal system was installed at the base of the net to reduce sediment buildup. The system uses a pump and eductor to transfer silt to a location west of the second block net and the Route A1A Bridge. The licensee also installed two new concrete intermediate posts in the canal and a new net guy system to minimize net deformation and ballooning. This is expected to be particularly effective in reducing net deformation during periods of high debris flow. The modifications to the barrier net and the dredging of the intake canal were completed by the end of November 2002.

The improvements that the licensee made to the net and canal is expected to reduce the likelihood of future mortalities, particularly those associated with periods of high debris flow such as the conditions associated with Hurricane Michelle. We believe the losses sustained in 2001 were unusual and the result of a combination of bad weather, old net design, and a shoaling intake canal.

The turtle capture data for 2002 support the conclusion that the mortalities in 2001 were an unusual occurrence. The annual environmental operating report for 2002 will not be available before April 2003. However, the NRC staff requested the turtle capture information for 2002 from the licensee to assist us in this consultation. A total of 632 turtles [629 greens and loggerheads and 3 hawksbill sea turtles (*Eretmochelys imbricata*)] were recovered from the intake canal. During calendar year 2002, two green turtle mortalities were attributed to plant operation. One was recovered against the old 12.7-cm (5-inch) block net and one was determined to have drowned in one of the capture (drift) nets. A total of 18 turtles were determined to be injured or diseased from causes not attributable to plant operation. One additional mortality was determined not to be causally related to plant operation. The moribund turtle was badly tangled in fishing line and believed to have died due to the entanglement. Although a greater number of green and loggerhead turtles were recovered in 2002, there were significantly fewer causally related mortalities. We expect that this low rate will continue in the future, particularly after the significant improvements to the canal and block net. Therefore, the staff believes that the incidental take statement contained in the current Biological Opinion issued on May 4, 2001, as modified by letter dated July 30, 2002, remains appropriate and valid and no modifications to the Biological Opinion are necessary at this time. The staff does not

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R. Crabtree

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plan to initiate formal consultation at this time; however, should the design improvements installed in 2002 perform as expected or better, then the NRC may, in the future, revisit consultation to reduce the incidental take limits. The staff believes that the elevated mortality rate during 2001 was an unusual occurrence resulting from severe weather and a block net system that could not cope with the debris loading present in association with a hurricane. Modifications to the canal and block net system should minimize or prevent future episodes of higher than expected mortality.

We will provide you with a copy of the 2002 annual environmental operating report after we receive it from the licensee in late April. This report will contain detailed data and analyses concerning turtle captures in 2002. If you have any comments or questions, please contact Dr. Michael Masnik at 301-415-1191 or [MTM2@NRC.GOV](mailto:MTM2@NRC.GOV).

Sincerely,

*/RA/*

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Program  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-335 and 50-389

Enclosure: As stated

cc: w/encl.: See next page



## Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struts  
Secretary

February 8, 2002

Mr. Mike Murray  
Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

Re: Department of Energy, Florida Power and Light Company, Environmental Report  
Operation License Renewal State, St. Lucie Units 1 and 2, Hutchinson Island, St. Lucie  
County

SAI: FL 200201111376C

Dear Mr. Murray:

We have reviewed the above-referenced Clearinghouse project and recommend the following action to improve functioning of the facility.

Anoxic conditions have been reported at the bottom of Big Mud Creek where the creek depth exceeds forty feet. Fish kills have been reported in that area for quite some time and it is recommended that the creek be filled to a more environmentally friendly depth, provided there are no critical operational constraints that would prohibit such action.

If you have questions regarding this letter, or if we may be of further assistance, please give me a call at (850) 487-2231.

Sincerely,

Robert W. Hall  
Office of Intergovernmental Programs

cc: Cheryl McKee  
Jeff Beal  
Jim Golden

"More Protection, Less Process"

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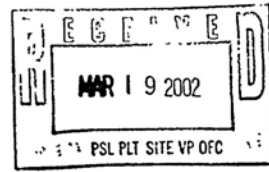
STATE OF FLORIDA  
DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

JEB BUSH  
Governor

STEVEN M. SEIBERT  
Secretary

March 6, 2002



Mr. D.E. Jernigan  
Florida Power & Light Company  
6501 South Ocean Drive  
Jensen Beach, Florida 34957

RE: Department of Energy - Florida Power & Light Company - St. Lucie Nuclear Power Plant Units 1 and 2 - Applicant's Environmental Report Operating License Renewal Stage - Docket Nos. 50-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida  
SAI: FL200201111376C

Dear Mr. Jernigan:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4231, 4331-4335, 4341-4347, as amended, has coordinated a review of the above-referenced project.

The Florida Department of Environmental Protection (DEP) notes that anoxic conditions have been reported at the bottom of Big Mud Creek where the water depth exceeds 40 feet. Fish kills have been reported in that area over time; therefore, DEP recommends that the creek be filled to a more environmentally friendly depth, provided there are no critical operational constraints that would prohibit such action. Please refer to the enclosed DEP comments for further details.

The Florida Fish and Wildlife Conservation Commission (FWC) has not identified any new concerns for fish and wildlife resources involved with this license renewal. However, in a related matter, FWC will be reviewing Big Mud Creek to determine if additional manatee protection measures are warranted. This area may have thermal properties or other characteristics that are attractive to manatees. In addition, FWC would like to work with the

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100  
Phone: 850.488.8466/Suncom 278.8466 FAX: 850.921.0781/Suncom 291.0781  
Internet address: <http://www.dca.state.fl.us>

CRITICAL STATE CONCERN FIELD OFFICE  
2796 Overseas Highway, Suite 212  
Marathon, FL 33050-2227

COMMUNITY PLANNING  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
INCOM 488-7956

EMERGENCY MANAGEMENT  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
INCOM 413-0060

HOUSING & COMMUNITY DEVELOPMENT  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
INCOM 488-7956

Mr. D.E. Jernigan  
March 6, 2002  
Page Two

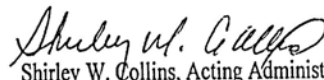
Florida Power & Light Company to formalize a protocol for the capture and recovery of manatees entrained in the power plant's intake canal. Please refer to the enclosed FWC comments for further details.

The Florida Department of Transportation (FDOT) notes that State Road A-1-A may be affected if work occurs on the power plant's intake and discharge systems. FDOT should be contacted regarding any activities that impact state owned rights-of-way, as permits may be required. All work within DOT rights-of-way must be accomplished in accordance with the requirements of FDOT's Utility Accommodation Manual. Please refer to the enclosed FDOT comments for further details.

Based on the information contained in the environmental report and the enclosed comments provided by our reviewing agencies, the state has determined that, at this stage, the above-referenced action is consistent with the Florida Coastal Management Program.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Ms. Jasmin Raffington at (850) 922-5438.

Sincerely,

  
Shirley W. Collins, Acting Administrator  
Florida Coastal Management Program

SWC/dc

Enclosures

cc: Robert W. Hall, Florida Department of Environmental Protection  
Bradley J. Hartman, Florida Fish and Wildlife Conservation Commission  
Larry Hymowitz, Florida Department of Transportation

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



ALLAN L. EGBERT, Ph D., Executive Director  
VICTOR J. HELLER, Assistant Executive Director

DAVID K. MEEHAN  
St. Petersburg

H. A. "HERKY" HUFFMAN  
Deltona

JOHN D. ROOD  
Jacksonville

QUINTON L. HEDGEPETH, DDS  
Miami

EDWIN P. ROBERTS, DC  
Pensacola

RODNEY BARRETO  
Miami

SANDRA T. KAUPE  
Palm Beach

BRADLEY J. HARTMAN, DIRECTOR  
OFFICE OF ENVIRONMENTAL SERVICES  
(850)488-6661 TDD (850)488-9542  
FAX (850)922-5675

February 11, 2002

Mr. Mike Murray  
Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100

RE: SAI# FL200201111376C, Florida  
Power & Light Company, Operating  
License Renewal, St. Lucie Units 1 & 2

Dear Mr. Murray:

The Office of Environmental Services of the Fish and Wildlife Conservation Commission has reviewed the referenced project, and offers the following comments.

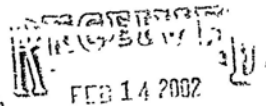
Florida Power & Light Company (FPL) is seeking approval from the U. S. Nuclear Regulatory Commission to renew the operating licenses for St. Lucie Units 1 and 2 for an additional 20 years. The applicant has not identified any changes to operations, or modifications or refurbishments to facilities necessary for this re-licensing, that would affect the environment or plant effluents.

Because there are no significant changes to these facilities or their operation, we do not believe there are any new concerns for fish and wildlife resources involved with this renewal. However, pursuant to the settlement of a lawsuit, our agency will be reviewing Big Mud Creek to determine if additional manatee protection measures are warranted. This area may have thermal properties or other characteristics that are attractive to manatees. In addition, we would like to work with FPL to formalize a protocol for capture and recovery of manatees entrained in the power plant's intake canal. In this regard, the applicant should contact Mr. Ron Mezich at (850) 922-4330.

Sincerely,

  
Bradley J. Hartman, Director  
Office of Environmental Services

BJH/DBB  
ENV 1-2-3  
fplstluciesau  
cc: Mr. Ron Mezich



State of Florida Clearinghouse

620 South Meridian Street • Tallahassee • FL • 32399-1600  
www.floridaconservation.org



Jeb Bush  
Governor

## Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

February 8, 2002

Mr. Mike Murray  
Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

State of Florida Clearinghouse

Re: Department of Energy, Florida Power and Light Company, Environmental Report  
Operation License Renewal State, St. Lucie Units 1 and 2, Hutchinson Island, St. Lucie  
County

SAI: FL 200201111376C

Dear Mr. Murray:

We have reviewed the above-referenced Clearinghouse project and recommend the following  
action to improve functioning of the facility.

Anoxic conditions have been reported at the bottom of Big Mud Creek where the creek depth  
exceeds forty feet. Fish kills have been reported in that area for quite some time and it is  
recommended that the creek be filled to a more environmentally friendly depth, provided there  
are no critical operational constraints that would prohibit such action.

If you have questions regarding this letter, or if we may be of further assistance, please give me a  
call at (850) 487-2231.

Sincerely,

Robert W. Hall  
Office of Intergovernmental Programs

cc: Cheryl McKee  
Jeff Beal  
Jim Golden

"More Protection, Less Process"

Printed on recycled paper.



**Florida Department of Transportation**

OFFICE OF MODAL DEVELOPMENT  
3400 WEST COMMERCIAL BOULEVARD  
FORT LAUDERDALE, FLORIDA 33309-3421  
TELEPHONE: (954) 777-4490; FAX: (954) 677-7892; Toll-Free: (866) 336-8435  
February 12, 2002

JEB BUSH  
GOVERNOR

THOMAS F. BARRY, JR.  
SECRETARY

Mr. Mike Murray, Coordinator  
Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

Dear Mr. Murray:

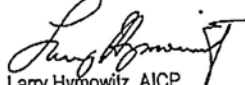
Subject: FL20020111376C  
Hutchinson Island Plant

In response to the subject Intergovernmental Coordination and Review request, the Department has the following comments regarding the Department of Energy, FPL Applicant's Environmental Report Operating License Renewal Stage, for the St. Lucie Nuclear Power Plant Units 1 and 2 on Hutchinson Island (St. Lucie County).

A review of the subject application indicates that State Road A-1-A may be affected if work occurs on the Intake and Discharge systems. The Department should be contacted regarding any changes that take place that impact State owned right-of-way. Additionally, all work within FDOT right of way shall be accomplished in accordance with the requirements of the Florida Department of Transportation's Utility Accommodation Manual, dated January 1999. Permits may be required, and can be obtained through the District Permits office.

Thank you for the chance to participate in this review process. Please contact Ms. Amie Goddeau, Drainage Engineer, at (954) 777-4343 for any drainage questions pertaining to the project. Mr. Clark Turberville, P.E., FDOT District Permits Engineer at (954) 777-4377 may be contacted regarding FDOT permitting requirements and Mr. Rocco DePrimo, Production Support Manager, may be contacted at (954) 777-4125 regarding Utility Accommodation Manual requirements.

Sincerely,



Larry Hymowitz, AICP  
Intergovernmental Manager

LH:TS

cc: Sandra Whitmire  
Amie Goddeau  
Clark Turberville  
Rocco DePrimo  
Nancy Bungo

File 4280.15

[www.dot.state.fl.us](http://www.dot.state.fl.us)



COUNTY: ST. LUCIE  
 Message:  
 DATE: 1/10/02  
 COMMENTS DUE DATE: 2/10/02  
 CLEARANCE DUE DATE: 3/11/02  
 SAI#: FL20020111376C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH & WILDLIFE CONSERV. COMM HEALTH X STATE TRANSPORTATION ENVIRONMENTAL PROTECTION  RECEIVED BUREAU OF HISTORIC PRESERVATION 02 JAN 15 AM 8:48	SOUTH FLORIDA WMD  01-4066 NHPA	ENVIRONMENTAL POLICY/C & ED  <i>St. Lucie</i> SA1-FPL 2002-288

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- X Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

**Project Description:**

Department of Energy - Florida Power and Light Company - Applicant's Environmental Report Operating License Renewal Stage - St. Lucie Units 1 and 2 - Docket Nos. 50-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida

<b>To:</b> Florida State Clearinghouse AGENCY CONTACT AND COORDINATOR (SCH) 2555 SHUMARD OAK BLVD TALLAHASSEE, FLORIDA 32399-2100 (850) 414-6580 (SC 994-6580) (850) 414-0479	<b>EO. 12372/NEPA</b> <input checked="" type="checkbox"/> No Comment <input type="checkbox"/> Comment Attached <input type="checkbox"/> Not Applicable	<b>Federal Consistency</b> <input checked="" type="checkbox"/> No Comment/Consistent <input type="checkbox"/> Consistent/Comments Attached <input type="checkbox"/> Inconsistent/Comments Attached <input type="checkbox"/> Not Applicable
--	---	--

From: Division of Historical Resources  
 Division/Bureau: Bureau of Historic Preservation *Janet Snyder Matthews*  
 Reviewer: SARAH JALVING *2/21/2002*  
 Date: 2/20/02

Appendix E

01/24/2002 10:18

850-922-6200

GOV ENV AFF

PAGE 01

COUNTY: ST. LUCIE

DATE: 1/10/02

COMMENTS DUE DATE: 2/10/02

Message:

CLEARANCE DUE DATE: 3/11/02

SAI#: FL20020111376C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH & WILDLIFE CONSERV. COMM HEALTH STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTH FLORIDA WMD	X ENVIRONMENTAL POLICY/C & ED  <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>RECEIVED</p> <p>JAN 16 2002</p> <p>OFFICE OF POLICY AND BUDGET ENVIRONMENTAL POLICY UNIT</p> </div>

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of Energy - Florida Power and Light Company - Applicant's Environmental Report Operating License Renewal Stage - St. Lucie Units 1 and 2 - Docket Nos. 60-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida.

To: Florida State Clearinghouse  
AGENCY CONTACT AND COORDINATOR (SCH)  
2555 SHUMARD OAK BLVD  
TALLAHASSEE, FLORIDA 32399-2100  
(850) 414-6580 (SC 994-6580)  
(850) 414-0479

EO. 12372/NEPA

Federal Consistency

- No Comment
- Comment Attached
- Not Applicable

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

*Defer to DEP*

From:

Division/Bureau: OPB/NRG

Reviewer: M. Tamm

Date: 1/16/02

COUNTY: ST. LUCIE  
 DATE: 1/10/02  
 COMMENTS DUE DATE: 2/10/02  
 CLEARANCE DUE DATE: 3/11/02  
 Message: SAI#: FL200201111376C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH & WILDLIFE CONSERV. COMM HEALTH STATE X TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTH FLORIDA WMD	ENVIRONMENTAL POLICY/C & ED

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

**Project Description:**

Department of Energy - Florida Power and Light Company - Applicant's Environmental Report Operating License Renewal Stage - St. Lucie Units 1 and 2 - Docket Nos. 50-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida.

<p>To: Florida State Clearinghouse                  AGENCY CONTACT AND COORDINATOR (SCH)                  2555 SHUMARD OAK BLVD                  TALLAHASSEE, FLORIDA 32399-2100                  (850) 414-6580 (SC 994-6580)                  (850) 414-0478</p>	<p>EO. 12372/NEPA  <input type="checkbox"/> No Comment  <input checked="" type="checkbox"/> Comment Attached  <input type="checkbox"/> Not Applicable</p>	<p>Federal Consistency  <input type="checkbox"/> No Comment/Consistent  <input checked="" type="checkbox"/> Consistent/Comments Attached  <input type="checkbox"/> Inconsistent/Comments Attached  <input type="checkbox"/> Not Applicable</p>
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From: \_\_\_\_\_  
 Division/Bureau: FDOT D4  
 Reviewer: Jerry Scheuchert, AICP  
 Date: 2/12/02



FEB-08-2002 16:30

P.09

FLORIDA STATE CLEARINGHOUSE  
RPC INTERGOVERNMENTAL COORDINATION  
AND RESPONSE SHEET

FSU  
Refer  
Fl. Dir. CE  
51:10

SAI#: FL200201111376C

DATE: 1/10/02

COMMENTS DUE TO CLEARINGHOUSE: 1/11/02 2/10/02

AREA OF PROPOSED ACTIVITY: COUNTY: ST. LUCIE CITY: Hutchinson Island

FEDERAL ASSISTANCE  DIRECT FEDERAL ACTIVITY  FEDERAL LICENSE OR PERMIT  OCS

PROJECT DESCRIPTION

Department of Energy - Florida Power and Light Company - Applicant's Environmental Report Operating License Renewal Stage - St. Lucie Units 1 and 2 - Docket Nos. 50-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida.

ROUTING: RPC  
X TREASURE COAST RPC

RECEIVED  
JAN 16 2002  
TREASURE COAST  
REGIONAL PLANNING COUNCIL

PLEASE CHECK ALL THE LOCAL GOVERNMENTS BELOW FROM WHICH COMMENTS HAVE BEEN RECEIVED; ALL COMMENTS RECEIVED SHOULD BE INCLUDED IN THE RPC'S CLEARINGHOUSE RESPONSE PACKAGE. IF NO COMMENTS WERE RECEIVED, PLEASE CHECK "NO COMMENT" BOX AND RETURN TO CLEARINGHOUSE.

COMMENTS DUE TO RPC: 1/11/02 2/3/02

ST. LUCIE

NO COMMENTS: \_\_\_\_\_

(IF THE RPC DOES NOT RECEIVE COMMENTS BY THE DEADLINE DATE, THE RPC SHOULD CONTACT THE LOCAL GOVERNMENT TO DETERMINE THE STATUS OF THE PROJECT REVIEW PRIOR TO FORWARDING THE RESPONSE PACKAGE TO THE CLEARINGHOUSE.)

NOTES:

ALL CONCERNS OR COMMENTS REGARDING THE ATTACHED PROJECT (INCLUDING ANY RPC COMMENTS) SHOULD BE SENT IN WRITING BY THE DUE DATE TO THE CLEARINGHOUSE. PLEASE ATTACH THIS RESPONSE FORM AND REFER TO THE SAI # IN ALL CORRESPONDENCE. IF YOU HAVE ANY QUESTIONS REGARDING THE ATTACHED PROJECT, PLEASE CONTACT THE STATE CLEARINGHOUSE AT (850) 414-6580 OR SUNCOM 994-6580.

FEB-08-2002 16:31

P. 10

**DRAFT**

Subject to Modifications

**TREASURE COAST REGIONAL PLANNING COUNCIL  
INTERGOVERNMENTAL COORDINATION AND REVIEW LOG**

**TCRPC NUMBER:** 02-SL-01-16                      SAI# FL200201111376C

**APPLICANT:** Florida Power and Light Company

**PROJECT DESCRIPTION:** Environmental Report Operating License Renewal for St. Lucie Nuclear Power Plant Units 1 and 2

Florida Power and Light Company is applying to the United States Nuclear Regulatory Commission for renewal of operating licenses for St. Lucie Nuclear Power Plant's units 1 and 2. The license for Unit 1 will expire in 2016, and Unit 2 will expire in 2023. The renewal would permit FPL to operate each unit for an additional 20 years. The nuclear power plant is located on Hutchinson Island in St. Lucie County approximately 7 miles southeast of Fort Pierce and 8 miles north of Stuart.

**FUNDING AGENCY:** None

**PROJECT COSTS:** N/A

**RECOMMENDATIONS:** Renewal of the operating licenses is not in conflict or inconsistent with the goals and policies of the SRPP.

**AGENCIES CONTACTED:** City of Fort Pierce  
City of Port St. Lucie  
St. Lucie County

Appendix E

COUNTY: ST. LUCIE  
 DATE: 1/10/02  
 COMMENTS DUE DATE: 2/10/02  
 CLEARANCE DUE DATE: 3/11/02  
 SAI#: FL20020111376C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH & WILDLIFE CONSERV. COMM X HEALTH STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	SOUTH FLORIDA WMD	ENVIRONMENTAL POLICY/C & ED

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- X Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

**Project Description:**  
 Department of Energy - Florida Power and Light Company - Applicant's Environmental Report Operating License Renewal Stage - St. Lucie Units 1 and 2 - Docket Nos. 50-335 and 50-389 - Hutchinson Island, St. Lucie County, Florida

To: Florida State Clearinghouse  
 AGENCY CONTACT AND COORDINATOR (SCH)  
 2555 SHUMARD OAK BLVD  
 TALLAHASSEE, FLORIDA 32399-2100  
 (850) 414-6580 (SC 994-6580)  
 (850) 414-0479

EO. 12372/NEPA

Federal Consistency

No Comment  
 Comment Attached  
 Not Applicable

No Comment/Consistent  
 Consistent/Comments Attached  
 Inconsistent/Comments Attached  
 Not Applicable

**RECEIVED**  
 JAN 15 2002  
 BUREAU OF  
 ONSITE SEWAGE  
 PROGRAMS

From:  
 Division/Bureau: HSES  
 Reviewer: Brod. Co. H  
 Date: 1-15-02

**SAI Routing Sheet**

COUNTY: ST. LUCIE

DATE: 01/11/2002

Message:

SAI#: FL200201111376C

PROJECT TO BE REVIEWED BY: (Div/Program)	ASSIGNED REVIEWERS (Print Last Name)	IS PROJECT LOCATED IN APPROVED DRJ? (Circle Yes/No)				Is Project CONSISTENT w/ COMPLAN? YES NO	Is Project CONSISTENT w/ FCMP? YES NO	Do you have any COMMENTS on project? YES NO	DATE REVIEW COMPLETED	RVWR/ SUPV INT
		YES		NO						
		Is Project Consistent with DO?	Monitoring Letter?	Is Project DRJ Score?	Monitoring Letter?					
DCP	RWD	YES	NO	YES	NO	NA			1/16/02	
1/14/02 Date Rec'd										
Complete and forward to Div/Prog Below no later than: 2/10/02										
DEM	Hampton								1/17/02	
1/10/02 Date Rec'd										
Complete and forward to Div/Prog Below no later than: 2/10/02										
CMP	Clanton	Wetlands?		Stormwater?					2-8-02	DL
2/7/02 Date Rec'd		YES	NO	YES	NO					
Complete and forward to ACC Coordinator no later than: 2/10/02										

1-17-02

Mike McDonald  
 Pls. review and send comments.  
 Return to Mary Lou.  
 Thanks

NO COMMENTS,  
 m. McDonald  
 2/7/02

## **Appendix F**

### **GEIS Environmental Issues Not Applicable to St. Lucie Units 1 and 2**

## Appendix F

### GEIS Environmental Issues Not Applicable to St. Lucie Units 1 and 2

Table F-1 lists the environmental issues listed in the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS) (NRC 1996; 1999)<sup>(a)</sup> and 10 CFR Part 51, Subpart A, Appendix B, Table B-1, that are not applicable to St. Lucie Units 1 and 2 because of plant or site characteristics.

**Table F-1.** GEIS Environmental Issues Not Applicable to St. Lucie Units 1 and 2

ISSUE—10 CFR Part 51, Subpart A, Appendix B, Table B-1	Category	GEIS Sections	Comment
<b>SURFACE WATER QUALITY, HYDROLOGY, AND USE (FOR ALL PLANTS)</b>			
Altered thermal stratification of lakes	1	4.2.1.2.3 4.4.2.2	St. Lucie Units 1 and 2 do not discharge to a lake.
Altered salinity gradients	1	4.2.1.2.2 4.4.2.2	St Lucie Units 1 and 2 discharge to the ocean.
Eutrophication	1	4.2.1.2.3 4.4.2.2	St Lucie Units 1 and 2 discharge to a large oceanic water body.
Water-use conflicts (plants with cooling ponds or cooling towers using makeup water from a small river with low flow)	2	4.3.2.1 4.4.2.1	The St. Lucie Units 1 and 2 cooling system does not use makeup water from a small river with low flow.
<b>AQUATIC ECOLOGY (FOR ALL PLANTS)</b>			
Premature emergence of aquatic insects	1	4.2.2.1 4.4.3	Aquatic insects only present in freshwater environments.
<b>AQUATIC ECOLOGY (FOR PLANTS WITH COOLING-TOWER-BASED HEAT DISSIPATION SYSTEMS)</b>			
Entrainment of fish and shellfish in early life stages	1	4.3.3	This issue is related to heat-dissipation systems that are not installed at St. Lucie Units 1 and 2.
Impingement of fish and shellfish	1	4.3.3	This issue is related to heat-dissipation systems that are not installed at St. Lucie Units 1 and 2.
Heat shock	1	4.3.3	This issue is related to heat-dissipation systems that are not installed at St. Lucie Units 1 and 2.

1 (a) The GEIS was originally issued in 1996. Addendum 1 to the GEIS was issued in 1999. Hereafter,  
2 all references to the "GEIS" include the GEIS and its Addendum 1.

Appendix F

**Table F-1. (cont'd)**

ISSUE—10 CFR Part 51, Subpart A, Appendix B, Table B-1	GEIS		Comment
	Category	Sections	
<b>GROUNDWATER USE AND QUALITY</b>			
Groundwater use conflicts (potable and service water, and dewatering; plants that use >100 gpm)	2	4.8.1.1 4.8.1.2	St. Lucie Units 1 and 2 withdraw less than 100 gpm of groundwater.
Groundwater-use conflicts (plants using cooling towers withdrawing makeup water from a small river)	2	4.8.1.3 4.4.2.1	St. Lucie does not use cooling towers.
Groundwater-use conflicts (Ranney wells)	2	4.8.1.4	St. Lucie Units 1 and 2 do not have or use Ranney wells.
Groundwater quality degradation (Ranney wells)	1	4.8.2.2	St. Lucie Units 1 and 2 do not withdraw groundwater.
Groundwater quality degradation (cooling ponds in salt marshes)	1	4.8.3	St. Lucie Units 1 and 2 do not use cooling ponds.
Groundwater quality degradation (cooling ponds at inland sites)	2	4.8.3	St. Lucie Units 1 and 2 do not use cooling ponds.
<b>TERRESTRIAL RESOURCES</b>			
Cooling tower impacts on crops and ornamental vegetation	1	4.3.4	St. Lucie Units 1 and 2 lack cooling towers and cooling ponds.
Cooling tower impacts on native plants	1	4.3.5.1	St. Lucie Units 1 and 2 lack cooling towers and cooling ponds.
Bird collisions with cooling towers	1	4.3.5.2	St. Lucie Units 1 and 2 lack cooling towers and cooling ponds.
Cooling pond impacts on terrestrial resources	1	4.4.4	St. Lucie Units 1 and 2 lack cooling towers and cooling ponds.
<b>HUMAN HEALTH</b>			
Microbiological organisms (occupational health)	1	4.3.6	This issue is related to workers maintaining cooling towers, which St. Lucie does not have.
Microbiological organisms (human health) (plants using lakes or canals, or cooling towers or cooling ponds that discharge to a small river)	2	4.3.6	St. Lucie Units 1 and 2 do not use lakes or canals, or cooling towers or cooling ponds that discharge to small river.

**F.1 References**

10 CFR 51. Code of Federal Regulations, Title 10, *Energy*, Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.”

U.S. Nuclear Regulatory Commission (NRC). 1996. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*. NUREG-1437, Volumes 1 and 2, Washington, D.C.