UNITED STATES NUCLEAR REGULATORY COMMISSION DOCKET NO. 50-389 ST. LUCIE PLANT, UNIT 2 FLORIDA POWER & LIGHT COMPANY, ET AL NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission), has issued Facility Operating License No. NPF-16, (License) to Florida Power & Light Company, Orlando Utilities Commission of the City of Orlando and Florida Municipal Power Agency (licensees). This License authorizes operation of the St. Lucie Plant, Unit 2 (facility) at reactor core power levels not in excess of 2560 megawatts thermal in accordance with the provisions of the License, the Technical Specifications and the Environmental Protection Plan. However, the License contains a condition currently limiting operation to five percent of full power (128 megawatts thermal). Authorization to operate at greater than five percent power will require specific Commission approval.

St. Lucie Plant, Unit 2 is a pressurized water reactor located at the licensees' site on Hutchinson Island in St. Lucie County, Florida approximately 34 miles north-northeast of the city of West Palm Beach. The License is effective as of the date of issuance and shall expire at midnight on April 6, 2023.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the

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in the License. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the FEDERAL REGISTER on March 9, 1981 (46 F. R. 15831).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

For further details with respect to this action, see (1) Facility Operating License No. NPF-16, with Technical Specifications (NUREG-0949) and Environmental Protection Plan; (2) the report of the Advisory Committee on Reactor Safeguards dated November 17, 1981; (3) the Commission's Safety Evaluation Report dated October 1981; Supplement No. 1 dated December 1981; Supplement No. 2 dated September 1982; Supplement No. 3 dated (April) 1983; (4) the Final Safety Analysis Report and amendments thereto; (5) the Environmental Report and supplements thereto; (6) the Draft Environmental Statement dated October 1981; (7) the Final Environmental Statement dated April 1982; and (8) the assessment of the effect of license duration on matters discussed in the Final Environmental Statement for St. Lucie Plant, Unit 2.

These documents are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the Indian River Community College Library, 3209 Virginia Avenue, Ft. Pierce, Florida

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33450. A copy of Facility Operating License No. NPF-16 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. Copies of the Safety Evaluation Report and its Supplements 1 through 3 (NUREG-0843) and the Final Environmental Statement (NUREG-0842) may be purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing the U. S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO desposit account holders can call 301-492-9530.

Dated at Bethesda, Maryland, the 6th day of April; 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

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George W. Knighton, Chief Licensing Branch No. 3 Division of Licensing

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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

Docket No. 50-335

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AMENDMENT TO INDEMNITY AGREEMENT NO. B-76 AMENDMENT NO 8

Effective October 14, 1982, Indemnity Agreement No. B-76, between Florida Power & Light Company and the Atomic Energy Commission, dated February 11, 1975, as amended, is hereby further amended as follows:

Wherever the name "Florida Power & Light Company" appears in the indemnity agreement, the following named licensee is added:

"Orlando Utilities Commission of the City of Orlando, Florida."

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Rallash for

Jerome Saltzman, Assistant Director State and Licensee Relations Office of State Programs

Accepted

, 1983 Accepted

By

FLORIDA POWER & LIGHT COMPANY

By ORLANDO UTILITIES COMMISSION OF THE CITY OF ORLANDO, FLORIDA

1983



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

Docket No. 50-335

AMENDMENT TO INDEMNITY AGREEMENT NO. B-76 AMENDMENT NO. 9

Effective February 3, 1983, Indemnity Agreement No. B-76, between Florida Power & Light Company, Orlando Utilities Commission of the City of Orlando, Florida, and the Atomic Energy Commission, dated February 11, 1975, as amended, is hereby further amended as follows:

• Wherever the names "Florida Power & Light Company, and "Orlando Utilities Commission of the City of Orlando, Florida" appear in the indemnity agreement, the following named licensee is added:

"Florida Municipal Power Agency"

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Warrel Off and for

Jerome Saltzman, Assistant Director State and Licensee Relations Office of State Programs

Accepted

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FLORIDA POWER & LIGHT COMPANY

By ORLANDO UTILITIES COMMISSION OF THE CITY OF ORLANDO, FLORIDA

Accepted_____, 1983

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FLORIDA MUNICIPAL POWER AGENCY



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

Docket No. 50-335 50-389

AMENDMENT TO INDEMNITY AGREEMENT NO. B-76 AMENDMENT NO. 10

Effective APR 6 1983, Indemnity Agreement No. B-76, between Florida Power & Light Company, Orlando Utilities Commission of the City of Orlando, Florida, and Florida Municipal Power Agency, and the Atomic Energy Commission, dated February 11, 1975, as amended, is hereby further amended as follows:

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 3 - License number or numbers

SNM-1514	(From 12:01 a.m., February 11, 1975 to 12 midnight, February 29, 1976, inclusive)
SNM-1902	(From 12:01 a.m., October 14, 1982 to 12 midnight, APR 5 1983 inclusive)
DPR-67	(From 12:01 a.m., March 1, 1976)
NPF-16	(From 12:01 a.m. APR 6 1983)

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Jerome Saltzman, Assistant Director State and Licensee Relations Office of State Programs

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ASSESSMENT OF THE EFFECT OF LICENSE DURATION ON MATTERS DISCUSSED IN THE FINAL ENVIRONMENTAL STATEMENT FOR THE ST. LUCIE PLANT, UNIT 2

INTRODUCTION

The Final Environmental Statement (FES) for the operation of the St. Lucie Plant, Unit 2 was published in April 1982. At that time it was staff practice to issue operating licenses for a period of 40 years from the date of the construction permit. This was approximately 30 years of operating life.

However, since the applicant has requésted in their application that the operating license (OL) for their St. Lucie Plant, Unit 2 then under consideration by the staff, have a duration of 40 years from the date of OL issuance, an assessment contained herein is made for those issues affected by the 40 year duration.

DISCUSSION

The staff has reviewed the St. Lucie 2 FES to determine which aspects considered in the FES are affected by the duration of the operating license. In general, the FES assesses various impacts associated with operation of the facility in terms of annual impacts and balances these against the anticipated annual energy production benefits. Thus, the overall assessment and conclusions would not be dependent on 'specific operating life. There are, however, a few areas in which a specific operating life was assumed. These are as follows:

- 1. Radiological assessments are based on a 15-year plant midlife.
- Probabilistic assessment of severe accidents. The evaluation and findings in the FES are applicable to 40 years of operation, therefore, no further appraisal is necessary is this area.
- 3. Community characteristics. The evaluation and findings in the FES are applicable to 40 years of operation; therefore, no further appraisal is necessary in this area.
- Uranium fuel cycle impacts are based on one initial core load and 29 annual refuelings.

EVALUATION

The staff's appraisal of the significance of the use of 40 years of operation rather than 30 as it affects the two areas above (i.e. 1 and 4) is presented in the following discussions:

 <u>Radiological Assessments</u> - The NRC staff calculated dose commitments to the human population residing around nuclear power reactors to assess the impact on people from radioactive material released from these reactors. The annual dose commitment is calculated to be the dose that would be received over a 50-year period following the intake of radioactivity for one year under the conditions that would exist 15 years after the plant began operation. .е. т. .

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The 15 year period is chosen as representing the midpoint of plant operation and is incorporated into the dose models by allowing for buildup of long life radionuclides in the soil. It affects the estimated doses only for radionuclides ingested by humans that have half-lives greater than a few years. For a plant licensed for 40 years, increasing the buildup period from 15 to 20 years would increase the dose from long life radionuclides via the ingestion pathways by 10% at most. It would have much less effect on dose from shorter life radionuclides. Table E-6.6 of the FES indicates that the estimated doses via the ingestion pathways are well below the regulatory design objectives. For example, the ingestion dose to the thyroid from Unit 2 is 0.61 mrem/yr compared to an Appendix I design objective of 15 mrem/yr. Thus, an increase of even as much as 10% in these pathways would remain well below the Appendix I guidelines and would not be significant.

2. Uranium Fuel Cycle Impacts - The impacts of the uranium fuel cycle are based on 30 years of operation of a model LWR. The fuel requirements for the model LWR were assumed to be one initial core load and 29 annual refuelings (approximately 1/3 core). The annual fuel requirement for the model LWR averaged out over a 40-year operating life (1 initial core and 39 refuelings of approximately 1.3 core) would be reduced slightly as compared to the annual fuel requirement averaged for a 30-year operating life.

The net result would be approximately 1.5% reduction in the annual fuel requirement for the model LNR. This small reduction in fuel requirements would not lead to significant changes in the impacts of the uranium fuel cycle. The staff judges that there would not be any changes to St. Lucie 2 FES Table 5.11 (S-3) that would be necessary in order to consider 40 years of operation. If anything, the values in Table 5.11 become more conservative when a 40-year period of operation is considered.

CONCLUSION

The staff has reviewed the St. Lucie 2 FES and determined that only a few of the areas related to its NEPA analysis discussed in the statement were tied directly to a 30-year operating period. We have concluded, based on the reasons discussed in the sections above, that the impacts associated with a 40-year license duration are not significantly different from those associated with a 30-year license duration and are not significantly different from those assessed in the St. Lucie 2 FES.

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