

March 14, 1986

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MEMORANDUM FOR: Sholly Coordinator

FROM: Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE - NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND OPPORTUNITY FOR A HEARING

Florida Power and Light Company, et al., Docket 50-335, St. Lucie Plant, Unit No. 1, St. Lucie County, Florida

Date of amendment request: February 28, 1985

Description of amendment request: The proposed amendment would change the expiration date for the St. Lucie Plant, Unit No. 1 Operating License, DPR-67 from July 1, 2010 to March 1, 2016.

Basis for proposed no significant hazards consideration determination: The currently licensed term for St. Lucie Plant, Unit No. 1, is 40 years commencing with the issuance of the construction permit. The construction permit was issued to Florida Power and Light Company on July 1, 1970. Construction activities were completed just short of 6 years later and the operating license was issued on March 1, 1976. The effective operating license term resulting from the construction activities is just slightly more than 34 years. The licensee's application requests a 40-year operating license term for St. Lucie Plant, Unit No. 1, commencing with the operating license issuance date of March 1, 1976.

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The licensee's request for extension of the operating license is based on the fact that a 40-year service life was considered during the design and construction of the plant. Although this does not mean that some components will not require replacement during the plant lifetime, design features were incorporated that maximize the inspectability of structures, systems, and equipment. Surveillance and maintenance practices that are implemented in accordance with the ASME Code and the unit Technical Specifications provide assurance that any degradation in plant equipment will be identified and corrected.

The design of the reactor vessel and its internals considered the effects of 40 years of operation at full power with a plant capacity factor of 80% (32 effective full power years). Analyses have demonstrated that expected cumulative neutron fluences will not be a limiting consideration. Calculations, based on a 40 year operating life, were made in accordance with the requirements of 10 CFR 50.61 and found to be below the screening criteria. In addition, to these calculations, surveillance capsules placed inside the reactor vessel provide a means of monitoring the cumulative effects of power operation.

Aging analyses have been performed for all safety-related electrical equipment in accordance with the requirements of 10 CFR 50.49, "Environmental qualification of electrical equipment important to safety for nuclear power plants", identifying qualified lifetimes for this equipment. These lifetimes are incorporated into equipment maintenance and replacement practices to insure that all safety-related electrical equipment remains qualified and available to perform its safety function throughout a 40 year lifetime.

Based upon the above, it is concluded that the extension of the operating license for St. Lucie Plant, Unit No. 1, to allow a 40-year service life is consistent with the safety analysis in that all issues associated with plant aging that are required to be addressed have been addressed. Since the proposed amendment does not involve changes in the Technical Specifications or safety analysis, the staff concludes that it meets the criteria of 10 CFR 50.92 in that it does not: (i) involve any significant increases in the probability or consequences of an accident previously evaluated; or (ii) create the possibility of a new or different kind of accident from any accident previously evaluated; or (iii) involve any reduction in the margin of safety.

Based on this, the Commission proposes to determine that the proposed amendment, which provides for a 40 year operating life for St. Lucie Plant, Unit No. 1, involves no significant hazards considerations.

Local Public Document Room location: Indian River Junior College Library, 3209 Virginia Avenue, Ft. Pierce, Florida.

Attorney for licensee: Harold F. Reis, Esquire, Newman and Holtzinger, 1615 L Street, N.W., Washington, D.C. 20036.

NRC Project Director: Ashok C. Thadani

Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

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