

Docket No. 50-335

AUG 05 1976

Florida Power & Light Company
ATTN: Dr. Robert E. Uhrig
Vice President
Nuclear and General Engineering
Post Office Box 013100
Miami, Florida 33101

Gentlemen:

The Commission has issued the enclosed Amendment No. 7 to Facility License No. DPR-67 for the St. Lucie Plant Unit No. 1. The amendment consists of a revision to License No. DPR-67 in response to your request dated July 30, 1976 and supplement dated August 3, 1976. Your proposed amendment has been modified and these modifications have been discussed with representatives of your staff.

The amendment permits removal of the shutdown cooling system from operation for periods up to 4 hours in duration for inspections within the reactor vessel while the reactor is in the refueling mode. The authority is granted through August 31, 1976, and is restricted by provisions of the amendment.

Copies of the related Safety Evaluation and the Federal Register Notice also are enclosed.

Sincerely,

Original Signed by:
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

I called G. Gower
of I&E & told
him this was
ISSUED.
R Silva
8/5/76

I called JKH
& talked w/ Jack DeMasty
(in L. La Skovjan's absence)
to let him know that this
was approved. Reba Dugg
8/5/76
10 p.m.

Enclosures:

1. Amendment No. 7 to License No. DPR-67
2. Safety Evaluation
3. Federal Register Notice

Cleared for issuance
w/ V. Stello
Cham Ben Robinson
8/4/76 at 11:55
RD

cc w/enclosures: see next page

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SURNAME	RMdiggs	RDSilver:ah	Ketchen	DLZiemann	DGZienhut
DATE	8/4/76	8/4/76	8/5/76	8/5/76	8/5/76

AUG 05 1976

cc w/enclosures:

Jack R. Newman, Esquire
Lowenstein, Newman, Reis & Axelrad
1025 Connecticut Avenue, N. W.
Washington, D. C. 20036

Norman A. Coll, Esquire
McCarthy, Steel, Hector & Davis
14th Floor, First National Bank Building
Miami, Florida 33131

Mr. John L. McQuigg
P. O. Box 1408
Stuart, Florida 33494

Indian River Junior College Library
3209 Virginia Avenue
Ft. Pierce, Florida 33450

Mr. Weldon B. Lewis
County Administrator
St. Lucie County
Post Office Box 700
Ft. Pierce, Florida 33450

Mr. Bruce Blanchard
Environmental Projects Review
Department of the Interior
Room 5321
18th and C Streets, N. W.
Washington, D. C. 20240

cc w/enclosures and cy of FPL's
filings dtd. 7/30/76 and 8/3/76:
Mr. Ed Maroney
Bureau of Intergovernmental
Relations
725 South Bronough Street
Tallahassee, Florida 32304

Mr. Shepard N. Moore, Region IV
Environmental Protection Agency
1421 Peachtree Street, N. E.
Suite 300
Atlanta, Georgia 30390

Dr. Neill Thomasson (AW-459)
Chief, Energy Systems Analysis
Branch
Office of Radiation Programs
Environmental Protection Agency
401 M Street S. W.
Washington, D. C. 20460

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FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-335

ST. LUCIE PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 7
License No. DPR-67

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Florida Power & Light Company (the licensee) dated July 30, 1976, as supplemented by letter dated August 3, 1976, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, Enclosure 1 to the license is hereby amended as follows:

A. Add a new Section L to read:

"L. The shutdown cooling loop may be removed from operation for periods up to 4 hours in duration to perform inspections within the reactor vessel provided that during such periods:

1. The reactor is in Refueling Mode,
2. At least one shutdown cooling loop shall be operable for immediate initiation on demand,
3. All control element assemblies, except those associated with fuel removed from the core, shall be fully inserted, and
4. The chemical and volume control system (CVCS) flow path between the primary dilution water and the charging pumps shall be locked closed.

This provision shall be valid only through August 31, 1976."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Date of Issuance: AUG 05 1976

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' SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 7 TO LICENSE NO. DPR-67

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT UNIT NO. 1

DOCKET NO. 50-335

INTRODUCTION

By letter dated July 30, 1976, and supplement dated August 3, 1976, Florida Power & Light Company (FPL) requested an amendment to Facility Operating License No. DPR-67 for the St. Lucie Plant Unit No. 1. The amendment request would permit removal of the shutdown cooling system from operation for periods up to 4 hours to perform inspections within the reactor vessel while the reactor is in the refueling mode.

The amendment proposed by FPL has been modified and these modifications have been discussed with representatives of the FPL staff.

DISCUSSION

The amendment proposed by FPL would suspend the requirements of Technical Specification 3.9.8 for periods up to 4 hours in duration. The purpose of the request is to permit good remote visual inspections within the reactor vessel. The inspections are a part of the licensee's program to determine the cause of a power distribution anomaly observed during the power ascension testing.

Specification 3.9.8 requires that at least one shutdown cooling loop shall be in operation while in the refueling mode. The purposes of the specification are to minimize the effects of an inadvertent boron dilution and to assure sufficient cooling capacity to remove decay heat and maintain the water in the reactor pressure vessel below 140°F.

The postulated boron dilution accident analyzed in the Final Safety Analysis Report included the assumptions that all control element assemblies (CEA) are withdrawn, that non-borated water is added via the charging pumps, and that there is shutdown cooling flow to assure uniform boron concentration within the vessel. Based on these assumptions, the reactor would be made critical in about 1.5 hours. During the visual inspections, without shutdown cooling flow, there

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is a decreased assurance of uniformity of boron concentration if non-borated water were added. However, the effect of non-uniform boron, should it occur, would be compensated by the additional requirement that all CEAs except those associated with fuel assemblies removed for inspections must be inserted. In addition, the locking of valves in the chemical and volume control system provides additional assurance that dilution with non-borated water would not occur. Therefore, the likelihood of inadvertent criticality by boron dilution would not be increased during the proposed inspections.

While in the refueling mode, operation of the shutdown cooling system assures that the coolant in the vessel will remain below a temperature of 140°F. The system is sized to handle the decay heat load about 28 hours after shutdown following essentially infinite operation at full power. The system is presently allowed to be shutdown for a period up to one hour for certain core alterations. Since the core has been operated for only 3 months at powers up to a maximum of 80% and since the reactor heat has been decaying for 3 weeks, the heat removal requirements are considerably less than design requirements and the heatup during four hour periods at this time would be no greater than the heatup during the one hour period presently allowed by the Technical Specifications. In addition, the temperature of the coolant in the vessel will be monitored to assure that the temperature limit of 140°F for the refueling mode is not exceeded. The shutdown cooling system can be manually activated if the temperature approaches the limit.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

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CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the changes do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the changes do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: APR 01 1976

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-335

FLORIDA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 7 to Facility Operating License No. DPR-67, issued to Florida Power & Light Company (the licensee), which revised Enclosure 1 of the license for operation of the St. Lucie Plant Unit No. 1 (the facility) located in St. Lucie County, Florida. The amendment is effective as of its date of issuance.

The amendment permits removal of the shutdown cooling system from operation for periods up to 4 hours in duration for inspections within the reactor vessel while the reactor is in the refueling mode. The authority is granted only through August 31, 1976, and is restricted by provisions of the amendment.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated July 30, 1976, and supplement dated August 3, 1976, (2) Amendment No. 7 to License No. DPR-67, and (3) the Commission's concurrently issued Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Indian River Junior College Library, 3209 Virginia Avenue, Ft. Pierce, Florida 33450. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 5th day of August, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

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