

DISTRIBUTION

Docket File 50-251 V. Noonan
 NRC PDR TERA
 Local PDR NSIC
 NRR Rdg
 ORBL Rdg
 H. Denton
 D. Eisenhut
 R. Tedesco
 A. Schwencer
 M. Grotenhuis
 C. Parrish
 I&E (3)
 Attorney, OELD
 B. Jones (4)
 B. Scharf (10)
 ACRS (16)
 C. Miles
 R. Diggs
 W. Gammill
 B. Grimes
 D. Brinkman

December 14, 1979

Docket No. 50-251

Dr. Robert E. Uhrig, Vice President
 Advanced Systems and Technology
 Florida Power and Light Company
 Post Office Box 529100
 Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. 43 to Facility Operating License No. DPR-41 for the Turkey Point Plant Unit No. 4. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated August 7, 1979. This letter provided an analysis as required by License Condition 3.D.(1) to justify going beyond six months of equivalent operation from June 1, 1979 without inspecting the steam generator tubes.

The amendment permits continued operation of the Turkey Point Plant, Unit No. 4 for an additional two effective full power months from that authorized by Amendment No. 41 dated June 15, 1979 for a total of eight effective full power months from June 1, 1979 at which time the steam generators shall be inspected.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

131 AS 12/14/79

A. Schwencer, Chief
 Operating Reactors Branch #1
 Division of Operating Reactors

Enclosures:

1. Amendment No. 43 to DPR-41
2. Safety Evaluation
3. Notice of Issuance

TACS 1199 #14

cc: w/enclosures
 See next page *SEE PREVIOUS YELLOW FOR CONCURRENCE

KB Cp1

OFFICE	DOR:ORB1*	DOR:ORB1*	DOR:ORB1*	DOR:AD:ORP*	OELD*
SURNAME	MGrotenhuis	CParrish	ASchwencer	WPGammill	SGoldberg
DATE	12/13/79:jb	12/13/79	12/13/79	12/13/79	12/13/79

8001020 053

DISTRIBUTION

Docket File 50-251
 NRC PDR
 Local PDR
 NRR Reading
 ORB1 Reading
 H. Denton
 D. Eisenhut
 R. Tedesco
 A. Schwencer
 M. Grotenhuis
 C. Parrish
 I&E (3)
 Attorney, OELD
 B. Jones (4)
 B. Scharf (10)
 ACRS (16)

C. Miles
 R. Diggs
 W. Gammill
 B. Grimes
 D. Brinkman
 V. Noonan
~~ERR~~
 TERA
 NSIC

Docket No. 50-251

Dr. Robert E. Uhrig, Vice President
 Advanced Systems and Technology
 Florida Power and Light Company
 Post Office Box 529100
 Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-41 for the Turkey Point Nuclear Generating, Unit No. 4. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated August 7, 1979. That letter provided an analysis as required by License Condition 3.D.(1) to justify going beyond six months of equivalent operation from June 1, 1979 without inspecting the steam generator tubes.

The amendment permits continued operation of the Turkey Point Plant, Unit No. 4 for an additional two effective full power months for a total of eight effective full power months from June 1, 1979.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

A. Schwencer, Chief
 Operating Reactors Branch #1
 Division of Operating Reactors

Enclosures:

1. Amendment No. to DPR-41
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
 See next page

OK PER
 LANGRISH
 OCT. 16, 1978
 AMOT. No. 39
 NOTICE ONLY

TACS 11993 and 11994

OFFICE	DOR:ORB1 <i>gm</i>	DOR:ORB1	DOR:ORB1 <i>AS</i>	DOR:AD:ORP	OELD <i>sj</i>
SURNAME	MGrotenhuis	CS Parrish	ASchwencer	WP Gammill	GOLDBERG <i>ML</i>
DATE	12/13/79:jb	12/ /79	12/13/79	12/13/79	12/13/79



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

December 14, 1979

Docket No. 50-251

Dr. Robert E. Uhrig, Vice President
Advanced Systems and Technology
Florida Power and Light Company
Post Office Box 529100
Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. 43 to Facility Operating License No. DPR-41 for the Turkey Point Plant Unit No. 4. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated August 7, 1979. This letter provided an analysis as required by License Condition 3.D.(1) to justify going beyond six months of equivalent operation from June 1, 1979 without inspecting the steam generator tubes.

The amendment permits continued operation of the Turkey Point Plant, Unit No. 4 for an additional two effective full power months from that authorized by Amendment No. 41 dated June 15, 1979 for a total of eight effective full power months from June 1, 1979 at which time the steam generators shall be inspected.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:

1. Amendment No. 43 to DPR-41
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

Robert E. Uhrig
Florida Power and Light Company

- 2 -

December 14, 1979

cc: Mr. Robert Lowenstein, Esquire
Lowenstein, Newman, Reis and Axelrad
1025 Connecticut Avenue, N.W.
Suite 1214
Washington, D. C. 20036

Mr. Jack Shreve
Office of the Public Counsel
Room 4, Holland Building
Tallahassee, Florida 32304

Environmental and Urban Affairs Library
Florida International University
Miami, Florida 33199

Mr. Norman A. Coll, Esquire
Steel, Hector and Davis
1400 Southeast First National
Bank Building
Miami, Florida 33131

Mr. Henry Yaeger, Plant Manager
Turkey Point Plant
Florida Power and Light Company
P. O. Box 013100
Miami, Florida 33101

Honorable Dewey Knight
County Manager of Metropolitan
Dade County
Miami, Florida 33130

Bureau of Intergovernmental Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Director, Technical Assessment Division
Office of Radiation Programs (AW-459)
U. S. Environmental Protection Agency
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N.W.
Atlanta, Georgia 30308

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



FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT NUCLEAR GENERATING, UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 43
License No. DPR-41

1. The Nuclear Regulatory Commission (the Commission) has found that:
- A. The application for amendment by Florida Power and Light Company (the licensee) dated August 7, 1979, 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.

2. Accordingly, paragraph 3.D is modified to amend sub-paragraph 3.D.(1). Sub-paragraph 3.D.(1) reads as follows:

D. Steam Generator Operation

- (1) After equivalent operation in Cycle 6 of eight months from June 1, 1979, Turkey Point Unit 4 shall be brought to the cold shutdown condition and the steam generators shall be inspected unless: (1) an inspection of the steam generators is performed within this eight month period as a result of the requirements in 2, 3 and 4 below, or (2) an acceptable analysis of the susceptibility for stress corrosion cracking of tubing is submitted to explicitly justify continued operation of Unit No. 4 beyond the authorized eight equivalent months of operation. Any analysis justifying continued operation must be submitted at least 45 days prior to the expiration date of the authorized eight equivalent months of operation is defined as operation with the reactor coolant at a temperature greater than 350°F. Nuclear Regulatory Commission (NRC) approval shall be obtained before resuming power operation following this inspection.

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

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to Facility Operating
License No. DPR-41

Date of Issuance: December 14, 1979

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NO. 50-251

Replace the following pages of the Facility Operating License No. DPR-41 with the attached pages as indicated. The changed area in the license is indicated by a marginal line.

Remove Pages

4
5

Insert Pages

4
5

B. Technical Specifications

The Technical Specifications contained in Appendices A and B as revised through Amendment No. 39 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. This license is subject to the following conditions for the protection of the environment:

- (1) The applicant shall pursue evaluations of alternatives to the proposed cooling channel system during construction, interim operation, and evaluation of the channel system. These evaluations shall include at least the following:
 - (a) Study of availability of groundwater or other alternative sources of surface water to use in the cooling system.
 - (b) Study of applicability of mechanical cooling devices, including powered spray modules and cooling towers.
 - (c) Study of marine environmental impacts of once-through cooling alternatives (described in Section X of the AEC Final Environmental Statement on Turkey Point Units 3 and 4, July 1972).
- (2) The applicant shall take appropriate corrective action on any adverse effects determined as a result of monitoring and study programs. To the fullest extent practicable, the applicant shall utilize results of study programs in improving and modifying the operation of the facility and its cooling system so as to achieve a minimal adverse environmental impact.

D. Steam Generator Operation

- (1) After equivalent operation in Cycle 6 of eight months from June 1, 1979, Turkey Point Unit 4 shall be brought to the cold shutdown condition and the steam generators shall be inspected unless: (1) an inspection of the steam generators

is performed within this eight month period as a result of the requirements in 2, 3 and 4 below, or (2) an acceptable analysis of the susceptibility for stress corrosion cracking of tubing is submitted to explicitly justify continued operation of Unit No. 4 beyond the authorized eight equivalent months of operation. Any analysis justifying continued operation must be submitted at least 45 days prior to the expiration date of the authorized eight equivalent months of operation. For the purpose of this requirement, equivalent operation is defined as operation with the reactor coolant at a temperature greater than 350°F. Nuclear Regulatory Commission (NRC) approval shall be obtained before resuming power operation following this inspection.

- (2) Reactor coolant to secondary leakage through the steam generator tubes shall be limited to 0.3 gpm per steam generator,. With a steam generator tube leakage greater than this limit, the reactor shall be brought to the cold shutdown condition within 24 hours. The leaking tube(s) shall be evaluated and plugged prior to resuming power operation.
- (3) The concentration of radioiodine in the reactor coolant shall be limited to 1.0 microcurie/gram during normal operation and to 30 microcuries/gram during power transients.
- (4) Reactor operation shall be terminated and NRC approval shall be obtained prior to resuming operation if primary to secondary leakage attributable to the denting phenomena is detected in 2 or more tubes during any 20 day period.
- (5) The Metal Impact Monitoring System (MIMS) shall be contained in operation with the capability of detecting loose objects. If the MIMS is out of service in other than cold shutdown or refueling mode of operation, this fact shall be reported to the NRC. Any abnormal indications from the MIMS shall also be reported to the NRC by telephone by the next working day and by a written evaluation within two weeks.
- (6) Following each startup from below 350°F, core barrel movement shall be evaluated using neutron noise techniques.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING, UNIT NO. 4

DOCKET NO. 50-251

INTRODUCTION

By application dated August 7, 1979 (L-79-215), Florida Power and Light Company (the licensee) requested amendments to Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Plant, Unit Nos. 3 and 4. The application requested amendments to allow ten effective full power months (EFPM) of operation for each unit prior to performing another steam generator inspection. Operation for ten effective full power months had been requested in the applications for amendments dated March 6, 1979 (L-79-51) for Unit 3 and May 18, 1979 (L-79-122) for Unit 4. On March 30, 1979, Amendment No. 46 authorized Unit 3 to operate for six EFPM and on June 15, 1979, Amendment No. 41 authorized Unit 4 to operate for six EFPM. In each instance we took the position that we preferred not to predict the steam generator performance for longer than six months at a time. In each instance the license condition permitted the submittal for an application for extended operation with acceptable justification.

BACKGROUND

By letter (L-79-122) dated May 18, 1979, Florida Power and Light Company (the licensee) submitted the results of the most recent steam generator inspection for Turkey Point Unit 4 and requested authorization to operate ten (10) effective full power months (EFPM), beginning June 1, 1979, prior to the next steam generator inspection. The technical basis for the preventative plugging program implemented subsequent to the inspection was

consistent with that for programs performed previously at this and other similarly degraded units. These programs have been determined adequate by the NRC to support six effective full power months of operation. The plugging criteria implemented during this inspection were more conservative than those implemented previously for six (6) months operation to support the request for ten (10) effective full power months of operation.

As indicated in our Safety Evaluation supporting the current authorization to operate Turkey Point Unit 4, we did not have an adequate technical basis to predict steam generator performance for periods longer than six (6) months at a time, and that our consideration of extended operation beyond six months would depend on the operating experience at this and similarly degraded PWR units. Accordingly, license Amendment 41 authorized Turkey Point Unit 4 to operate for only six (6) effective full power months.

By letter (1-79-215) dated August 7, 1979, the licensee has again requested an amendment to the operating license for Turkey Point Unit 4 to allow ten (10) effective full power months of operation prior to the next steam generator inspection. FPL has justified its request on the basis of its March 6, 1979 submittal, existing steam generator operating restrictions, and the continued leak free operation of Turkey Point Units 3 and 4 following the most recent steam generator inspections in February 1979 and April 1979, respectively.

The May 18, 1979 submittal regarding the results of the most recent steam generator inspection and the implemented plugging criteria at Turkey Point Unit 4 was discussed and evaluated in the SER attached to License Amendment 41 dated June 15, 1979. The June 15, 1979 SER is incorporated into this Safety Evaluation by reference.

EVALUATION

Turkey Point Unit 4 has essentially completed six months operation since the authorized re-start on June 1, 1979, without detectable steam generator leakage. Similarly, Turkey Point Unit 3, which has also experienced extensive denting, recently completed a six month plus seven week operating cycle without detectable steam generator leakage. The same conservative plugging criteria implemented at Turkey Point Unit 4 had also been implemented at Unit 3 during the previous inspection. On the basis of observed leak free operation for six months, Unit 3 was authorized for an additional seven weeks operation, beyond six months, to its November 1979 refueling outage.

This experience plus the results of the previous inspections at these units indicate the denting phenomenon at Turkey Point Unit 4 is continuing in a predictable manner.

The preventative plugging criteria implemented in April 1979 and evaluated in our above referenced SER were based upon the predicted growth (using finite element analysis) of the 17.5% tube hoop strain contour during a ten (10) month operating interval. These criteria were proved to be more conservative than those employed in previous inspections at this and at similarly degraded units which were based upon the predicted growth of the 17.5% contour over a six (6) month operating interval. The basis for these plugging criteria have been previously accepted by NRC and been shown to adequately support six (6) months of steam generator operation.

Whereas the licensee is requesting a four month extension to the currently authorized six month operating interval, NRC staff's discussions with the licensee indicated that a two month extension would permit Turkey Point Unit 4 to be operated until Unit 3 is returned to power (from its current refueling outage) some time in early February 1980. As expressed in our above referenced SER, we continue to have reservations regarding the validity of extrapolating the predictive methodology beyond six months. Considering, however, (1) that the implemented plugging criteria were significantly more conservative than the criteria already accepted by NRC as being adequate to support six (6) months of operation, and (2) that the currently authorized six EFPM operating interval has essentially been completed with no detectable steam generator leakage, we conclude that the operating interval may be extended for a maximum of two (2) effective full power months without significantly altering our previous conclusions that the steam generator tubes will maintain an acceptable degree of integrity. A similar extension was previously authorized for Turkey Point Unit 3 based upon the same considerations. These considerations together with the existing licensing conditions restricting steam generator operation provide reasonable assurance that the health and safety of the public will be protected.

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 or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does 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: December 14, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-251FLORIDA POWER AND LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 43 to Facility Operating License No. DPR-41 issued to Florida Power and Light Company (the licensee), which revised Technical Specifications for operation of the Turkey Point Nuclear Generating, Unit No. 4 (the facility) located in the Dade County, Florida. The amendment is effective as of the date of issuance.

The amendment permits continued operation of the Turkey Point Plant, Unit No. 4 for an additional two effective full power months from that authorized by Amendment No. 41 dated June 15, 1979 for a total of eight effective full power months from June 1, 1979 at which time the steam generators shall be inspected.

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 this amendment does not involve a significant hazards consideration.

- 2 -

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 or negative declaration and 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 August 7, 1979, (2) Amendment No. 43 to License No. DPR-41, and (3) the Commission's related 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 Environmental and Urban Affairs Library, Florida International University, Miami, Florida 33199. 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 14th day of December, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors