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MARCH 30 1981

Mr. William O. Parker, Jr.
Vice President - Steam Production
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos. 94, 94, and 91 for Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3. These amendments consist of changes to the Station's common Technical Specifications and are in response to your submittal dated July 15, 1980.

These amendments revise the Technical Specifications by changing the steam generator tube inspection program. We did not approve the portion of your request to reduce the inspection sample of a single steam generator from 6% to 3% of the tubes, as explained in the enclosed Safety Evaluation.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

Original signed by
John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 94 to DPR-38
2. Amendment No. 94 to DPR-47
3. Amendment No. 91 to DPR-55
4. Safety Evaluation
5. Notice of Issuance

cc w/enclosures: See next page

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OFFICE	ORB#4:DL	ORB#4:DL	C-ORB#4:DL	AD-OR:DL	OELD		
SURNAME	RIngram	PWagner/cb	JStolz	TNovak	RETCHEN		
DATE	3/18/81	3/18/81	3/20/81	3/24/81	3/26/81		

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

March 30, 1981

Dockets Nos. 50-269, 50-270
and 50-287

Mr. William O. Parker, Jr.
Vice President - Steam Production
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos. 94 , 94 ,and 91 for Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3. These amendments consist of changes to the Station's common Technical Specifications and are in response to your submittal dated July 15, 1980.

These amendments revise the Technical Specifications by changing the steam generator tube inspection program. We did not approve the portion of your request to reduce the inspection sample of a single steam generator from 6% to 3% of the tubes, as explained in the enclosed Safety Evaluation.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

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1. Amendment No. 94 to DPR-38
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cc w/enclosures: See next page

Duke Power Company

cc w/enclosure(s):

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Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Oconee County Library
501 West Southbroad Street
Walhalla, South Carolina 29691

Honorable James M. Phinney
County Supervisor of Oconee County
Walhalla, South Carolina 29621

Director, Criteria and Standards
Division
Office of Radiation Programs (ANR-460)
U. S. Environmental Protection Agency
Washington, D. C. 20460

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

Mr. Francis Jape
U.S. Nuclear Regulatory Commission
Route 2, Box 610
Seneca, South Carolina 29678

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Nuclear Power Generation Division
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J. Michael McGarry, III, Esq.
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Washington, D. C. 20036

cc w/enclosure(s) & incoming dtd.:
7/15/80

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

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

DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 94
License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duke Power Company (the licensee) dated July 15, 1980, 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-38 is hereby amended to read as follows:

   3.B Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 94, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 30, 1981

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

DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 94
License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duke Power Company (the licensee) dated July 15, 1980, 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-47 is hereby amended to read as follows:

   3.B Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 94, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 30, 1981

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

DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 91
License No. DPR-55

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duke Power Company (the licensee) dated July 15, 1980, 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-55 is hereby amended to read as follows:

   3.B Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 91, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 30, 1981

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 94 TO DPR-38

AMENDMENT NO. 94 TO DPR-47

AMENDMENT NO. 91 TO DPR-55

DOCKETS NOS. 50-269, 50-270 AND 50-287

Revise Appendix A as follows:

Remove Pages	Insert Pages
4.17-3	4.17-3
4.17-4*	4.17-4*

*Overleaf page; no changes.

than 10 months nor more than one fuel cycle after the previous inspection. The increase in inspection frequency shall apply until a subsequent inspection meets the conditions specified in 4.17.4.a and the interval can be extended to a maximum of 40 months.

c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.17-1 during the shutdown subsequent to any of the following conditions:

1. A seismic occurrence greater than the Operating Basis Earthquake,

2. A loss-of-coolant accident requiring actuation of the engineered safeguards, or

3. A main steam line or feedwater line break.

d. After primary to secondary leakage in excess of the limits of Specification 3.1.6, an inspection of the affected steam generator will be performed in accordance with the following criteria:

1. If the leaking tube is in a Group as defined in Section 4.17.3.b, all of the tubes in this Group in this steam generator will be inspected. If the results of this inspection fall into the C-3 category, additional inspections will be performed in the same Group in the other steam generator.

2. If the leaking tube is not in a Group as defined in 4.17.4.d.1, then an inspection will be performed on the affected steam generator in accordance with Table 4.17-1 with an initial inspection sample size of 6% of the tubes in the affected steam generator.

4.17.5 Definitions

As used in this specification:

a. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.

b. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either the inside or outside of a tube.

c. Degraded Tube means a tube containing imperfections $\geq$20% of the nominal wall thickness caused by degradation.

d. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

e. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective.

f. Plugging Limit means the imperfection depth beyond which the tube shall be removed from service because it may become unserviceable prior to the next inspection; it is equal to 40% of the nominal tube wall thickness.

g. Unserviceable describes the condition of a tube if it leaks or contains

a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in Specification 4.17.4.

h. Tube Inspection means an inspection of the steam generator tube from the point of entry completely to the point of exit.

4.17.6 Reports

a. The number of tubes plugged in each steam generator shall be reported to the Director, Office of Inspection and Enforcement, Region II, within 30 days following the completion of the plugging procedure.

b. The results of the steam generator tube inservice inspection shall be reported to the NRC within 3 months following completion of the inspection. This report shall include:

1. Number and extent of tubes inspected.

2. Location and percent of wall-thickness penetration for each indication of a degraded tube.

3. Identification of tubes plugged.

c. Results of steam generator tube inspections which fall into Category C-3 and require prompt notification of the NRC shall be reported pursuant to Specification 6.6.2.1.a prior to resumption of plant operation. The written followup of this report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

Bases

The program of periodic inservice inspection of steam generators provides the means to monitor the integrity of the tubing and to maintain surveillance in the event there is evidence of mechanical damage or progressive deterioration due to design, manufacturing errors, or operating conditions. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures may be taken.

Removal from service will be required for any tube with service-induced metal loss in excess of 40% of the tube nominal wall thickness or with a through wall crack. Additional corrective actions may be required to stabilize a circumferentially cracked tube.

The initial sample of tubes inspected in a steam generator includes tubes from three groups. First, lane tubes are inspected to assure their integrity. Second, all other inservice tubes with degradation, inspected in previous inspections, are inspected to assure tube integrity and determine degradation growth, if any. Third, a random sample of 3% of the total number of tubes in both steam generators is inspected. The results of the latter inspection dictate the extent of further examinations.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NO. DPR-55

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS NOS. 1, 2 AND 3

DOCKETS NOS. 50-269, 50-270 AND 50-287

Introduction

By letter dated July 15, 1980, the Duke Power Company (the licensee or DPC) submitted proposed changes to the Station's common Technical Specifications (TSs) that would revise the steam generator tube inspection program.

Background

The request proposes to change the steam generator tube unscheduled inspection requirements, after a primary-to-secondary leak, in TS 4.17.4.d as follows: (1) when the leaking tube is located within one, two, or three rows of the inspection lane (region where tube degradation unique to this area has been observed), all the tubes in this group in only the affected steam generator need be inspected (Currently the TSs are not explicit in this regard.); (2) when the leaking tube is not in the three rows of the open inspection lane, an inspection will be performed in accordance with Table 4.17-1, which defines the scope of the general inservice inspection program, except that the licensee has proposed a 3% initial inspection sample rather than the 6% now specified in the table when a single generator is inspected in a two steam generator plant such as an Oconee Unit.

Evaluation

The licensee is proposing that the steam generator tube inspection requirements after a primary-to-secondary tube leak as specified in TS 4.17.4.d be modified to indicate the following: (1) when the leaking tube is located within three rows of open inspection lane (areas where tube degradation previously has been observed), all the tubes in this group in only the affected steam generator need be inspected; (2) when the leaking tube is not in the three rows of the open inspection lane, an inspection will be performed in accordance with the general inspection program defined in Table 4.17-1 except that the initial sample size be reduced from 6% to 3% of the total number of tubes in the tube bundle when a single generator is inspected in a two generator plant. Each item is separately evaluated below.

(1) Affected Steam Generator

The proposal to limit an inspection to the leaking steam generator when a leak is found in the open inspection lane will both reduce personnel radiation exposure

associated with inspections and provide adequate assurance of steam generator integrity. In keeping with the Commission's policy to reduce radiation exposures to levels as low as reasonably achievable (ALARA), we conclude that the proposed TS is acceptable. If the results of the special inspection should fall into the C-3 category, Note (2) of Section 4.17.3.c states that inspection of the same area in the other steam generator will be required. Since the proposed TS explicitly states that only the affected steam generator need be inspected, it should also indicate that if the results from the special inspection fall into the C-3 category, additional inspections shall be performed in the same tube group in the other steam generator.

In conclusion, we find the provision to inspect only the leaking steam generator after a primary-to-secondary tube leak does not reduce the effectiveness of the overall unscheduled steam generator tube inspection program. Therefore, the proposal is acceptable with the condition that changes be made to agree with Note (2) of Section 4.17.3.c. The TS therefore is changed as follows:

> If the leaking tube is in a Group as defined in Section 4.17.3.b, all of the tubes in this Group in this steam generator will be inspected. If the results of this inspection fall into the C-3 category, additional inspections will be performed in the same Group in the other steam generator.

(2) Initial Sample Size

With regard to the proposed change in the general inspection program, we disagree with reducing the initial inspection sample size for a single generator from the currently required level of 6% to 3% of the total number of tubes in the tube bundle in the affected steam generator of a two steam generator plant. We find that the licensee did not provide an adequate technical basis to support his conclusion that the 6% initial inspection sample requirement is excessive. Because our past experience has indicated that steam generator leakage is usually indicative of corrosion progress in a steam generator, we believe that the 6% initial inspection sample size is necessary to preclude the possibility of overlooking significant tube degradation and consequently to reduce the potential for unscheduled outages. In addition, we do not believe that a 6% initial inspection sample will result in a substantial increase in the radiation exposure as compared to 3% initial inspection sample, since most exposure to radiation occurs when opening a steam generator. In view of the above, we conclude that the initial sample size, as stated in the current Oconee TSs, provides reasonable assurance to the health and safety of the public without incurring needless personnel exposure and should remain unchanged.

Environmental Consideration

We have determined that the amendments do 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 amendments involve 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 these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments 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 amendments 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 30, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-269, 50-270 AND 50-287

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 94 , 94 and 91 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, issued to Duke Power Company, which revised the Technical Specifications for operation of the Oconee Nuclear Station, Units Nos. 1, 2 and 3, located in Oconee County, South Carolina. The amendments are effective as of the date of issuance.

These amendments revise the Station's common Technical Specifications by changing the steam generator tube inspection program.

The application for the amendments 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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendments dated July 15, 1980, (2) Amendments Nos. 94 , 94 , and 91 to Licenses

Nos. DPR-38, DPR-47 and DPR-55, respectively, 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 Oconee County Library, 501 West Southbroad, Walhalla, South Carolina 29691. 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 Licensing.

Dated at Bethesda, Maryland, this 30th day of March 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing