



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

REGULATORY DOCKET FILE COPY

February 22, 1980

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

Mr. William O. Parker, Jr.
Vice President - Steam Production
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos. 80, 80, and 77 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 partial response to your request dated November 30, 1976, as revised June 21, 1977, January 23, 1979, October 16, 1979, and February 6, 1980.

These amendments revise the Technical Specifications by adding a new Technical Specification 4.17, Steam Generator Tubing Surveillance, in accordance with your application as supplemented and through discussions with our staff. Our Safety Evaluation and proposed Technical Specifications relating to this change were previously transmitted to you by our letter of January 18, 1980. Because of certain changes made in the January 18 proposed Technical Specifications since that time, we have prepared a Supplement to the earlier Safety Evaluation.

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

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosures:

1. Amendment No. 80 to DPR-38
2. Amendment No. 80 to DPR-47
3. Amendment No. 77 to DPR-55
4. Safety Evaluation Supplement
5. Notice of Issuance

cc w/enclosures: See next page

8003670057

Duke Power Company

cc w/enclosure(s):
Mr. William L. Porter
Duke Power Company
Post Office Box 2178
422 South Church Street
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esquire
DeBevoise & Liberman
700 Shoreham Building
806 15th Street, N.W.
Washington, D. C. 20005

Oconee Public Library
201 South Spring Street
Walhalla, South Carolina 29691

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

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.E.
Atlanta, Georgia 30308

U. S. Nuclear Regulatory Commission
Region II
Office of Inspection and Enforcement
ATTN: Mr. Francis Jape
P. O. Box 85
Seneca, South Carolina 29678

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 420, 7735 Old Georgetown Road
Bethesda, Maryland 20014

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

cc w/enclosure(s) and incoming
dtd.: 11/30/76, 6/21/77, 1/23/79,
10/16/79 and 2/6/80
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. 80
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 November 30, 1976, as revised June 21, 1977, January 23, 1979, October 16, 1979, and February 6, 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.

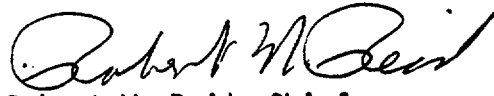
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-38 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 80 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



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 22, 1980



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. 80
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 November 30, 1976, as revised June 21, 1977, January 23, 1979, October 16, 1979, and February 6, 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.

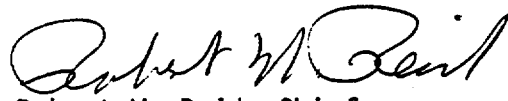
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-47 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 80 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



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 22, 1980



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. 77
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 November 30, 1976, as revised June 21, 1977, January 23, 1979, October 16, 1979, and February 6, 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.

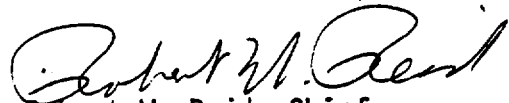
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility Operating License No. DPR-55 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 77 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



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 22, 1980

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 80 TO DPR-38

AMENDMENT NO. 80 TO DPR-47

AMENDMENT NO. 77 TO DPR-55

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

Revise Appendix A as follows:

Remove Page

iv

vi

Insert Page

iv

vi

4.17-1 through 4.17-6

The new pages and changes on the revised pages are indicated by marginal lines.

<u>Section</u>		<u>Page</u>
4.1.1	<u>Containment Leakage Tests</u>	4.4-1
4.4.2	<u>Structural Integrity</u>	4.4-6
4.4.3	<u>Hydrogen Purge System</u>	4.4-10
4.5	EMERGENCY CORE COOLING SYSTEMS AND REACTOR BUILDING COOLING SYSTEMS PERIODIC TESTING	4.5-1
4.5.1	<u>Emergency Core Cooling Systems</u>	4.5-1
4.5.2	<u>Reactor Building Cooling Systems</u>	4.5-6
4.5.3	<u>Penetration Room Ventilation System</u>	4.5-10
4.5.4	<u>Low Pressure Injection System Leakage</u>	4.5-12
4.6	EMERGENCY POWER PERIODIC TESTING	4.6-1
4.7	REACTOR CONTROL ROD SYSTEM TESTS	4.7-1
4.7.1	<u>Control Rod Trip Insertion Time</u>	4.7-1
4.7.2	<u>Control Rod Program Verification</u>	4.7-2
4.8	MAIN STEAM STOP VALVES	4.8-1
4.9	EMERGENCY FEEDWATER PUMP PERIODIC TESTING	4.9-1
4.10	REACTIVITY ANOMALIES	4.10-1
4.11	ENVIRONMENTAL SURVEILLANCE	4.11-1
4.12	CONTROL ROOM FILTERING SYSTEM	4.12-1
	(INTENTIONALLY BLANK)	4.13-1
4.14	REACTOR BUILDING PURGE FILTERS AND THE SPENT FUEL POOL VENTILATION SYSTEM	4.14-1
4.15	IODINE RADIATION MONITORING FILTERS	4.15-1
4.16	RADIOACTIVE MATERIALS SOURCES	4.16-1
4.17	STEAM GENERATOR TUBING SURVEILLANCE	4.17-1
4.18	HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)	4.18-1
4.19	FIRE PROTECTION AND DETECTION SYSTEM	4.19-1
4.20	REACTOR VESSEL INTERNALS VENT VALVES	4.20-1

LIST OF TABLES

<u>Table No.</u>		<u>Page</u>
2.3-1A	Reactor Protective System Trip Setting Limits - Unit 1	2.3-11
2.3-1B	Reactor Protective System Trip Setting Limits - Unit 2	2.3-12
2.3-1C	Reactor Protective System Trip Setting Limits - Unit 3	2.3-13
3.5-1-1	Instrument Operating Conditions	3.5-3
3.5-1	Quadrant Power Tilt Limits	3.5-14
3.17-1	Fire Protection & Detection Systems	3.17-3
4.1-1	Instrument Surveillance Requirements	4.1-3
4.1-2	Minimum Equipment Check Frequency	4.1-9
4.1-3	Minimum Sampling Frequency	4.1-10
4.2-1	Oconee Nuclear Station Capsule Assembly Withdrawal Schedule at Crystal River Unit No. 3	4.2-4
4.11-1	Oconee Environmental Radioactivity Monitoring Program	4.11-3
4.11-2	Offsite Radiological Monitoring Program	4.11-4
4.11-3	Analytical Sensitivity	4.11-5
4.17-1	Steam Generator Tube Inspection	4.17-5
4.18-1	Safety Related Shock Suppressors (Snubbers)	4.18-3
6.1-1	Minimum Operating Shift Requirements with Fuel in Three Reactor Vessels	6.1-6
6.6-1	Report of Radioactive Effluents	6.6-8

4.17 STEAM GENERATOR TUBING SURVEILLANCE

Applicability

Applies to the surveillance of tubing of each steam generator.

Objective

To ensure integrity of the steam generator tubing through a defined inservice surveillance program, and to minimize exposure of personnel to radiation during performance of the surveillance program.

Specification

4.17.1 Examination Methods

Inservice inspection of steam generator tubing shall include non-destructive examination by eddy-current testing or other equivalent techniques. The inspection equipment shall provide a sensitivity that will detect defects with a penetration of 20 percent or more of the minimum allowable as-manufactured tube wall thickness.

4.17.2 Acceptance Criteria

The steam generator shall be considered operable after completion of the specified actions. All tubes examined exceeding the plugging limit shall be removed from service (e.g., plugged, stabilized).

4.17.3 Selection and Testing

The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.17.1. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.17.4 and the inspected tubes shall be verified acceptable per Specification 4.17.5. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in both steam generators, with one or both steam generators being inspected. The tubes selected for these inspections shall be selected on a random basis except:

- a. The first sample inspection during each inservice inspection of each steam generator shall include:
 1. All nonplugged tubes that previously had detectable wall penetrations (>20%).
 2. At least 50% of the tubes inspected shall be in those areas where experience has indicated potential problems.
 3. A tube adjacent to any selected tube which does not permit passage of the eddy current probe for tube inspection.
- b. Tubes in the following Group(s) may be excluded from the first sample if all tubes in a Group in both OTSG are inspected. No credit will be taken for these tubes in meeting minimum sample size requirements.

(1) Group A-1: Tubes within one, two, or three rows of the open inspection lane.

c. The tubes selected as the second and third samples (if required by Table 4.17-1) during each inservice inspection may be subjected to less than a full tube inspection provided:

1. The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.
2. The inspections include those portions of the tubes where imperfections were previously found.

The results of each sample inspection shall be classified into one of the following three categories:

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

- NOTES: (1) In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.
- (2) Where special inspections are performed pursuant to 4.17.3.b, defective or degraded tubes found as a result of the inspection shall be included in determining the Inspection Results Category for that special inspection but need not be included in determining the Inspection Results Category for the general steam generator inspection, unless the mechanism of degradation is random in nature.

4.17.4 Inspection Intervals

The above required inservice inspections of steam generator tubes shall be performed at the following frequencies.

- a. Inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If the results of two consecutive inspections following service under all volatile treatment (AVT) conditions fall into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of 40 months.
- b. If the results of the inservice inspection of a steam generator performed in accordance with Table 4.17-1 at 40 month intervals fall in Category C-3, subsequent inservice inspections shall be performed at intervals of not less

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, additional inspections 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 will be inspected.
2. If the leaking tube is not in a Group as defined in 4.17.4.d.1, then an additional inspection will be performed on the affected steam generator in accordance with Table 4.17-1 (i.e., a minimum of 5 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.

An objective of this Specification is to provide an inspection plan which will insure, with a high degree of confidence, that no more than 30 defective tubes will remain in a steam generator after an initial C-3 category inspection.

Following an 18% random inspection (C-3 category inspection) an unaffected area is identified. The unaffected area will be logically and consistently defined based on generator design, defect location and characteristics. The criteria for accepting an area as unaffected depend on the number of defects found in the sample inspected in that area and are established such that there is a 0.05 or smaller probability of accepting the area as unaffected if it contains 30 or more defective tubes.

Experience with Babcock and Wilcox steam generators has indicated that tubes near the open inspection lane are susceptible to forms of degradation unique to that area. Therefore, tubes within one, two, or three rows of the inspection lane have been defined as a special group. If all of these tubes are inspected in both steam generators, no credit will be taken for them in meeting minimum sample size requirements and the results of their inspection will not be used in classifying the results of the general inspection into C-1, C-2 or C-3 categories, unless the mechanism of tube degradation is random in nature. Random degradation mechanisms are those which based on location, steam generator design and operation, and operating experience cannot logically and consistently be shown as limited to a local area.

The affected area will be 100% inspected to assure all defective tubes therein are identified and removed from service. NRC concurrence in this determination is required prior to completion of the inspection.

This inspection plan enables exposures to be maintained as low as reasonably achievable to the personnel involved in the inspection and assures that generator areas with significant numbers of degraded tubes are adequately inspected.

TABLE 4.17-1

STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action	Result	Action
A minimum of S Tubes per S.G. (1)	C-1	None	N/A	N/A	N/A	N/A
	C-2	Plug defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Plug defective tubes & inspect additional 4S tubes in this S.G.	C-1	N/A
			C-3	Plug defective tubes and perform actions for C-3 result of 1st Sample	C-2	Plug defective tubes
			C-3	Plug defective tubes and perform action for C-3 result of 1st Sample	C-3	Plug defective tubes and perform action for C-3 result of 1st Sample
	C-3	Inspect 6S tubes in this S.G., plug defective tubes & inspect 2S tubes in the other S.G. Per- form follow-on inspec- tions in the other S.G. in accordance with re- sults of the above inspec- tion as applied to Table 4.17-1. Prompt notification to NRC pursuant to specifi- cation 6.6.2.1.a	C-1	N/A	N/A	N/A
			C-2	N/A	N/A	N/A
			C-3 (2)	(a) If defects can be local- ized to an affected area, inspect all tubes in affected area and plug defective tubes.	C-1	N/A
				(b) If defects cannot be local- ized to an affected area, inspect all tubes in this S.G. and plug defective tubes.	C-2	N/A
	C-3	N/A				

Notes: (1) $S = 3 \frac{N}{n}$ Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection.

(2) Affected and unaffected areas shall be determined in the manner described in the Bases of this specification. The definition of these areas will be reported to the NRC when they are determined.



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

SUPPLEMENT TO SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 77 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 January 18, 1980, from the NRC, Duke Power Company was sent a set of proposed Technical Specifications (TSs) and a Safety Evaluation to support the TSs. These TSs would establish steam generator (SG) tube inspection requirements for the Oconee Nuclear Station (ONS). The proposed TSs would require that if at the C-2 level of inspection more than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective all tubes in the affected SG should be inspected. We asked Duke Power Company to inform us in writing within 20 days from January 18, 1980 if they objected to this course of action.

By letter dated February 6, 1980, Duke Power Company expressed their objection to the inspection requirements in the NRC proposed TSs on the basis that excessive inspections would be required in regions of the SGs which are not degraded. Based on discussion between Duke Power Company and the staff, alternate sample selection requirements were developed which were agreed to by the licensee. Therefore, our Safety Evaluation of January 18, 1980 has been supplemented to consider the change in sample selection requirements.

Sample Selection

Operating experience and inservice inspection data have indicated that SG tube degradation in the Oconee Unit 1 SGs are concentrated in specific areas of the generator. Specifically, tube degradation has occurred along the open inspection lane and in the outer periphery of the tube bundle. The current version of the Standard TS requires a 100% inspection of a SG if the results of a minimum 3% inspection indicate greater than 1% defective tubes or 10% degraded tubes in the sample. It is also required that the inspection sample be biased toward areas of the generator where degradation has been previously observed. These requirements can lead to a 100% inspection of a SG when the actual tube degradation is limited to a specific area. Because of this logic in the Standard TS and the operating experience at Oconee Unit 1, a new set of TSs for SG tube inspections have been developed to concentrate inspections in those areas of the SG experiencing tube degradation and to limit inspection in those areas of the generator for which there is reasonable assurance that tube degradation is not occurring.

Experience with Babcock and Wilcox SGs has indicated that tubes near the open inspection lane are susceptible to forms of degradation unique to that area. Therefore, tubes within one, two, or three rows of the inspection lane have been defined as a special group. If all of these tubes are inspected in both SGs, no credit will be taken for them in meeting minimum sample size requirements and the results of their inspection will not be used in classifying the results of the general inspection into C-1, C-2 or C-3 categories, unless the mechanism of tube degradation is random in nature. Random degradation mechanisms are those which based on location, SG design and operation, and operating experience cannot logically and consistently be shown as limited to any local areas.

The proposed TSs define two types of tube regions in a SG: (1) groups of tubes in well defined regions which are experiencing degradation, the affected area, and (2) the balance of the tubes in the SG, the unaffected area. The C-1, C-2, and C-3 categories of inspection results and the requirements for expanding the inspection based on these results are the same in the proposed and Standard TS, except when inspection results fall into the C-3 category. Rather than immediately proceeding to a 100% SG inspection when inspection results fall in the C-3 category, an 18% random sample of the SG is required. The purpose of this 18% sample is to provide an adequate sample to define the affected and unaffected areas of the SG. Affected areas are defined by boundaries that are logical and consistent with defect location, SG design and operation, and operating experience. The classification of the remainder of the SG as unaffected must be supported by the inspection results. The criteria for accepting an area as unaffected depend on the number of defects found in the sample inspected in that area and are established such that there is a 0.05 or smaller probability of accepting the area as unaffected if it contains 30 or more defective tubes. Once the affected area of the SG has been defined, a 100% inspection of that area will be required.

In summary, the proposed TSs require a 100% inspection of an affected area of the SG with the same probability as the Standard TS. The criteria for establishing an unaffected area provide reasonable assurance that a relatively small number of defective tubes may remain in the SG. Therefore, in order to concentrate inspection efforts in those areas of the SG where degradation is occurring and in keeping with the Commission's policy to reduce radiation exposure to levels as low as reasonably achievable, we have concluded that the sampling procedures in the recommended TSs represent an improvement over the current Standard TS and are acceptable.

Acceptance Criteria

Our Safety Evaluation of January 18, 1980 is also modified by deleting the footnote in the Acceptance Criteria Section relating to the Supplemental Testimony of James P. Knight before the Atomic Safety and Licensing Appeal Board. The footnote has been deleted since we have received and reviewed additional information in support of the approved Acceptance Criteria subsequent to the date of the Supplemental Testimony.

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: February 22, 1980

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKETS NOS. 50-269, 50-270, AND 50-287DUKE POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITYOPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 80, 80, and 77 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 Technical Specifications by adding a new Technical Specification 4.17, Steam Generator Tubing Surveillance.

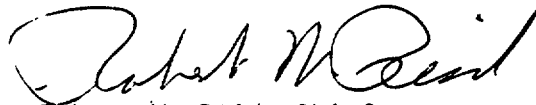
The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission had made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR 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 §1.5(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 November 30, 1976, as revised June 21, 1977, January 23, 1979, October 16, 1979, and February 6, 1980; (2) Amendments Nos. 80, 80, and 77 to Licenses Nos. DPR-38, DPR-47, and DPR-55, respectively, and (3) the Commission's related Safety Evaluation issued January 18, 1980, as supplemented February 22, 1980. 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, 201 South Spring Street, Walhalla, South Carolina. 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 22nd day of February 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors