March 6, 1979

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

DISTRIBUTION:
Docket File (3)
NRC PDR
L PDR (3)
ORB#4 Reading
HRDenton
VStello
BGrimes
TJCarter
RReid
MFairtile
RIngram
Atty, OELD
OI&E (7)
BJones (8) (12)
BScharf (15)
STSG
BHarless
~~DEisenhut~~ RVollmer
ACRS (16)
OPA, CMiles
DRoss
TERA
JRBuchanan
WOMiller, LFMB
XXXXXXXX
Gray File
Xtra Cys (4)
Knighton

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. 70, 70, and 67 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 request dated June 9, 1978.

These amendments revise the Technical Specifications by deleting requirements no longer applicable to the liquid effluent monitoring system. As discussed with and agreed to by your staff, changes to your proposal were made to meet our requirements.

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

Sincerely,

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

CP
T

Enclosures:
1. Amendment No. 70 to DPR-38
2. Amendment No. 70 to DPR-47
3. Amendment No. 67 to DPR-55
4. Safety Evaluation
5. Notice of Issuance

7903160043

cc w/enclosures: See next page

OFFICE	ORB#4:DOR	ORB#4:DOR	C-EEB:EP	OELD	C-ORB#4:DOR	
SURNAME	RIngram	MFairtile/cb	Knighton		RReid	
DATE	1/ /79	1/ /79	1/18/79	1/ /79	1/ /79	

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

Chief, Energy Systems Analyses
Branch (AW-459)
Office of Radiation Programs
U.S. Environmental Protection Agency
Room 645, East Tower
401 M Street, S.W.
Washington, D.C. 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

cc w/enclosure(s) and incoming
dtd.: 6/9/78

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. 70
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 June 9, 1978, 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.

7903160046

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. 70 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 6, 1979

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. 70
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 June 9, 1978, 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. 70 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 6, 1979

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. 67
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 June 9, 1978, complies with the standards and require ents 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. 67 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 6, 1979

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 70 TO DPR-38

AMENDMENT NO. 70 TO DPR-47

AMENDMENT NO. 67 TO DPR-55

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

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.9-1	3.9-1
3.9-2	3.9-2
3.9-2a	-----
3.9-3	3.9-3

Changes on the revised pages are indicated by marginal lines.

3.9 RELEASE OF LIQUID RADIOACTIVE WASTE

Applicability

Applies to the controlled release of all liquid waste discharged from the station which may contain radioactive materials.

Objective

To establish conditions for the release of liquid waste containing radioactive materials and to assure that all such releases are within the concentration limits specified in 10 CFR Part 20. In addition, to assure that the releases of radioactive material in liquid wastes (above background) to unrestricted areas meet the as low as reasonably achievable concept the following liquid release objectives shall apply:

a. The annual total quantity of radioactive materials in liquid waste, excluding tritium and dissolved gases, shall be less than 5 curies per unit;

b. The annual average concentration of radioactive materials in liquid waste, upon release from the Restricted Area, excluding tritium and dissolved noble gases, shall not exceed 2×10^{-8} µCi/ml;

c. The annual average concentration of tritium in liquid waste, upon release from the Restricted Area, shall not exceed 5×10^{-6} µCi/ml;

d. The annual average concentration of dissolved gases in liquid waste, upon release from the Restricted Area, shall not exceed 2×10^{-6} µCi/ml;

Specifications

3.9.1 If the experienced release of radioactive materials in liquid wastes, when averaged over a calendar quarter, is such that these quantities if continued at the same release rate for a year would exceed twice the annual objectives the licensee will:

a. Make an investigation to identify the causes for such release rates;

b. Define and initiate a program of action to reduce such release rates to the design levels; and

c. Describe these actions in a report to NRC/DOR within 30 days after incurring the reporting obligation.

3.9.2 The release rate of radioactive liquid effluents, excluding tritium and dissolved noble gases, shall not exceed 10 curies during any calendar quarter without specific approval of the Commission. Similarly, the quarterly average concentration of tritium released from the Restricted Area shall not exceed 1×10^{-5} µCi/ml.

3.9.3 The rate of release of radioactive materials in liquid waste from the station shall be controlled such that the instantaneous concentrations of radioactivity in liquid waste upon release from the Restricted Area, does not exceed the values listed in 10CFR20, Appendix B, Table II, Column 2.

3.9.4 The equipment installed in the liquid radioactive waste system shall be maintained and operated to process liquids as necessary prior to their discharge in order to limit the activity, excluding tritium and dissolved noble gases, released during any calendar quarter to 1.25 curies or less per unit.

3.9.5 As far as practicable, the releases of liquid waste shall be coordinated with the operation of the Keowee hydro unit.

3.9.6 Liquid waste discharged from the liquid waste disposal system shall be continuously monitored during release. The liquid effluent control monitor reading shall be compared with the expected reading of each discharge batch. The monitor shall be tested daily or prior to releases and calibrated at refueling intervals.

The calibration procedure shall consist of exposing the detector to a referenced calibration source in a controlled, reproducible geometry. The sources and geometry shall be referenced to the original monitor calibration which provides the applicable calibration curves.

3.9.7 The effluent control monitor shall be set to alarm and automatically close the waste discharge valve such that the limits specified in 10CFR20 are met.

In the event that the effluent control monitor is inoperable or cannot be calibrated to perform this function, redundant valve line-up check of the effluent pathway and redundant sample analyses will be performed prior to each liquid effluent release to assure that prescribed release limits are not exceeded.

3.9.8 In addition to the continuous monitoring requirements, liquid radioactive waste sampling and activity analysis shall be performed in accordance with Table 4.1.3. Records shall be maintained and reports of the sampling and analysis shall be submitted in accordance with Section 6.6 of these Technical Specifications.

Bases

It is expected that the releases of radioactive materials and liquid wastes will be kept within the design objective levels and will not exceed the concentration limits specified in 10CFR20. These levels provide the reasonable assurance that the resulting annual exposure to the whole body or any individual body organ will not exceed 5 millirem per year. At the same time, the licensee is permitted the flexibility of operation compatible with considerations of health and safety to assure that the public is provided a dependable source of power under unusual operating conditions which may

temporarily result in releases higher than design objective levels but still within the concentration limits specified in 10CFR20. It is expected that when using this operational flexibility under unusual operating conditions, the licensee shall exert every effort to keep the levels of radioactive materials and liquid wastes as low as reasonably achievable and that annual releases will not exceed a small fraction of the annual average concentration limits specified in 10CFR20.

The anticipated annual releases from the three Oconee units have been developed taking into account a combination of variables including fuel failures, primary system leakage, primary-to-secondary leakage, and the performance of the various waste treatment systems. The actual magnitude of these parameters is as follows:

a. Maximum expected reactor coolant corrosion product concentrations.
b. Reactor coolant fission product concentration corresponding to 0.25 percent fuel cladding defects.
c. Steam generator primary-to-secondary leakage rate of 20 gpd.
d. 255,160 gallons per year processed by the waste disposal system in a 30-day hold-up.
e. 1,060,800 gallons per year processed by the reactor coolant bleed treatment system.
f. A decontamination factor of 10^4 for all radionuclides except tritium for the coolant bleed and waste evaporators and a decontamination factor of 10 for the demineralizers except for tritium which had an assumed decontamination factor of 1 for evaporation-demineralization.
g. No removal by demineralization for Cs, Mo, and Y. A decontamination factor of 10^3 was used for the evaporation of iodine.
h. The decay time of the reactor coolant bleed system was 30 days.

The application of the above estimates results in the radionuclide discharge concentrations and rates shown in Table III-12 of the "Final Environmental Statement Related to Operation of Oconee Nuclear Station Units 1, 2, and 3." These concentrations are based on an annual average flow in the Keowee River of 1,100 cfs.

Operating procedures will identify all equipment installed in the liquid waste handling and treatment systems and will specify detailed procedures for operating and maintaining this equipment.

The as low as reasonably achievable liquid release objectives expressed in this specification are based on the NRC guidelines of April 11, 1978, derived from Appendix I of 10 CFR 50.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 67 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 June 9, 1978, the Duke Power Company (the licensee) proposed a change to Section 3.9, "Release of Liquid Radioactive Waste," of the Technical Specifications (TS) for Oconee Nuclear Station, Units 1, 2 & 3 (Oconee 1, 2 & 3). The proposed changes would change the requirements to operate liquid radwaste treatment equipment and delete requirements that are no longer applicable to the liquid effluent monitoring system currently installed at Oconee.

Evaluation

Technical Specification 3.9.4 governs maintenance and operation of the liquid radioactive waste system. The licensee proposed two changes to this section. One change is to remove a redundant statement of the specification objective now given in this section, which is presently stated in the Objective section of TS 3.9. The first proposal is merely editorial in nature and is thus acceptable. The second proposal limits the use of the system to the processing of radioactive wastes; the section as presently written requires the processing of all liquid wastes. The second change is acceptable as it preserves the capacity of the system for radioactive liquid wastes. We conclude, for the reasons above, that the changes to Section 3.9.4 are acceptable.

The licensee proposes a change to Specification 3.9.7 to delete the sentence: "Those additional actions will be applicable until December 1, 1976." In an earlier NRC Safety Evaluation dated August 24, 1976, changes to Specification 3.9.7 were accepted with the condition that the licensee would correct the high background problems associated with their liquid effluent monitor system and establish continuous monitoring during liquid effluent releases by December 1, 1976. With the installation of a permanent off-line monitor with improved capabilities, the licensee has fulfilled their commitment to correct the high background problems associated with their liquid effluent monitoring system and to establish continuous monitoring during liquid effluent releases. We, therefore, conclude that the date

7903160050

in TS 3.9.7 is no longer applicable, and the proposed change to Specification 3.9.7 is acceptable.

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 6, 1979

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. 70, 70 and 67 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, issued to Duke Power Company 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 to the Release of Liquid Radioactive Waste Technical Specifications reflect the installation of a new instrument to continuously monitor radioactive releases, and include editorial changes for clarification.

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.

7903160064

The Commission has determined that the issuance of these amendments 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 the issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated June 9, 1978, (2)Amendments Nos. 70 , 70, and 67 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, 201 South Spring Street, 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 Operating Reactors.

Dated at Bethesda, Maryland, this 6th day of March 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid

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