October 19, 1987

Docket Nos.: 50-269, 50-270
and 50-287

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Issuance of Amendment Nos. 162, 162, and 159 to Facility Operating Licenses DPR-38, DPR-47, and DPR-55 - Oconee Nuclear Station, Units 1, 2, and 3 (TACS 60168/60169/60170)

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 162, 162, and 159 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3. These amendments consist of changes to the Station's common Technical Specifications (TSs) in response to your request dated July 29, 1985.

The amendments revise the TSs to delete those TSs related to the Reactor Vessel Material Surveillance Program.

A copy of our Safety Evaluation is also enclosed. Notice of issuance of the enclosed amendments will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/S/

Helen N. Pastis, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II

Enclosures:
1. Amendment No. 162 to DPR-38
2. Amendment No. 162 to DPR-47
3. Amendment No. 159 to DPR-55
4. Safety Evaluation

cc w/enclosures: See next page

PDII-3/DRP-I/II	PDII-3/DRP-I/II	PDII-3/DRP-I/II
MDuncan/mac	HPastis	DHood, Acting PD
08/31/87	08/23/87	10/14/87

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Mr. H. B. Tucker
Duke Power Company

Oconee Nuclear Station
Units Nos. 1, 2 and 3

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

DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 162
License No. DPR-38

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

   A. The application for amendment to the Oconee Nuclear Station, Unit 1 (the facility) Facility Operating License No. DPR-38 filed by the Duke Power Company (the licensee) dated July 29, 1985, 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 set forth in 10 CFR Chapter 1;

   D. The issuance of this license 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 attachments 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. 162, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Darl S. Hood, Acting Director
Project Directorate II-3
Division of Reactor Projects - I/II

Attachment:
Technical Specification
Changes

Date of Issuance: October 19, 1987

PDII-3/DRP-I/II
MDuncan/mac
08/31/87

PDII-3/DRP-I/II
HPastis
09/23/87

NRR/EMEB
TMarsh CYCHENG
09/28/87

OGC-Bethesda
10/7/87

PDII-3/DRP-I/II
DHood, Acting PD
10/14/87

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

DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 162
License No. DPR-47

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

   A. The application for amendment to the Oconee Nuclear Station, Unit 2 (the facility) Facility Operating License No. DPR-47 filed by the Duke Power Company (the licensee) dated July 29, 1985, 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 set forth in 10 CFR Chapter 1;

   D. The issuance of this license 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 attachments 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. 162, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Darl S. Hood, Acting Director
Project Directorate II-3
Division of Reactor Projects - I/II

Attachment:
Technical Specification
Changes

Date of Issuance: October 19, 1987

PDII-3/DRP-I/II
MDuncan/mac
09/31/87

PDII-3/DRP-I/II
HPasalis
09/23/87

NRR/EMEB
TMarsh
09/ /87

OGC-Bethesda
09/ /87

PDII-3/DRP-I/II
DHood, Acting PD
10/14/87

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

DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 159
License No. DPR-55

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

   A. The application for amendment to the Oconee Nuclear Station, Unit 3 (the facility) Facility Operating License No. DPR-55 filed by the Duke Power Company (the licensee) dated July 29, 1985, 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 set forth in 10 CFR Chapter 1;

   D. The issuance of this license 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 attachments 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. 159, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Darl S. Hood, Acting Director
Project Directorate II-3
Division of Reactor Projects - I/II

Attachment:
Technical Specification
Changes

Date of Issuance: October 19, 1987

PDII-3/DRP-I/II
MDuncan/mac
09/31/87

PDII-3/DRP-I/II
HPastis
09/23/87

NRR/EMEB
TMarsh CYCHENG
09/28/87

OGC-Bethesda
10/7/87

PDII-3/DRP-I/II
DHood, Acting PD
10/14/87

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 162 TO DPR-38

AMENDMENT NO. 162 TO DPR-47

AMENDMENT NO. 159 TO DPR-55

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

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised page are identified by amendment number and contain vertical lines indicating the areas of change.

Remove Page	Insert Page
vi	vi
4.2-2	4.2-2
4.2-3	--

LIST OF TABLES

Table No.		Page
2.3-1	Reactor Protective System Trip Setting Limits - Units 1, 2 and 3	2.3-7
3.5-1-1	Instruments Operating Conditions	3.5-4
3.5-1	Quadrant Power Tilt Limits	3.5-14
3.5.5-1	Liquid Effluent Monitoring Instrumentation Operating Conditions	3.5-39
3.5.5-2	Gaseous Process and Effluent Monitoring Instrumentation Operating Conditions	3.5-41
3.7-1	Operability Requirements for the Emergency Power Switching Logic Circuits	3.7-14
3.17-1	Fire Protection & Detection Systems	3.17-5
4.1-1	Instrument Surveillance Requirements	4.1-3
4.1-2	Minimum Equipment Test Frequency	4.1-9
4.1-3	Minimum Sampling Frequency and Analysis Program	4.1-10
4.1-4	Radioactive Effluent Monitoring Instrumentation Surveillance Requirements	4.1-16
4.4-1	List of Penetrations with 10CFR50 Appendix J Test Requirements	4.4-6
4.11-1	Radiological Environmental Monitoring Program	4.11-3
4.11-2	Maximum Values for the Lower Limits of Detection (LLD)	4.11-5
4.11-3	Reporting Levels for Radioactivity Concentrations in Environmental Samples	4.11-8
4.17-1	Steam Generator Tube Inspection	4.17-6
6.1-1	Minimum Operating Shift Requirements with Fuel in Three Reactor Vessels	6.1-6

4.2.6 The power operated relief valve (PORV) is used for low temperature overpressure protection of the RCS and shall be demonstrated operable by:

a. Performing an operability test prior to each startup from cold shutdown.

b. Performing a calibration of the actuation circuit each refueling outage.

c. Performing an inspection of the PORV at least once every two refueling cycles.

4.2.7 Each shift, the RCS vent(s) (as defined in Specification 3.1.2.9) shall be verified to be open, if the vent(s) is(are) being used for overpressure protection. If the vent pathway is provided with a valve which is locked, sealed, or otherwise secured in the open position, then these valves will open at least once per 31 days.

Bases

The surveillance program has been developed to comply with the applicable edition of Section XI and addenda of the ASME Boiler and Pressure Vessel Code, Inservice Inspection of Nuclear Reactor Coolant Systems, as required by 10 CFR 50.55(a) to the extent practicable within limitations of design, geometry and materials of construction. The program places major emphasis on the area of highest stress concentrations and on areas where fast neutron irradiation might be sufficient to change material properties.

Amendment No. 162 (Unit 1)
Amendment No. 162 (Unit 2)
Amendment No. 159 (Unit 3)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 162 TO FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 162 TO FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 159 TO FACILITY OPERATING LICENSE NO. DPR-55

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2, and 3

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

INTRODUCTION

By letter dated July 29, 1985, Duke Power Company (the licensee) proposed changes to the Technical Specifications (TSs) of Facility Operating Licenses No. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units 1, 2 and 3. These amendments would consist of changes to the Station's common TSs.

The licensee requested the Director, Office of Nuclear Reactor Regulation approve for Oconee the integrated surveillance program documented in Babcock and Wilcox (B&W) Topical Report, BAW-1543, Revision 2 and 2A "Integrated Reactor Vessel Material Surveillance Program," February 1984. The proposed revision would delete those TSs related to the Reactor Vessel Material Surveillance Program. By letter dated July 3, 1986, the licensee requested withdrawal of the exemption from the requirement for a continuing in-vessel material surveillance program, as set forth in Appendix H to 10 CFR Part 50.

DISCUSSION

The proposed amendment would delete from the licenses an exemption from 10 CFR 50, Appendix H and delete Sections 4.2.4, 4.2.5, Table 4.2-1, and supporting bases from the Oconee Units 1, 2, and 3 Technical Specifications. These sections of the Technical Specifications contain the reporting requirements and schedule for withdrawal of the Oconee Units 1, 2, and 3 reactor vessel surveillance capsules. In lieu of the Technical Specifications requirements, the licensee indicates that their surveillance program will comply with the requirements in B&W Topical Report BAW-1543, Rev. 2 and 2A and 10 CFR 50, Appendix H.

10 CFR 50, Appendix H was revised in the Federal Register on May 27, 1983 and became effective on July 26, 1983. The requirements for an integrated surveillance program are documented in Section II.C of this revision of Appendix H. This section of Appendix H requires that each surveillance program be approved on a case-by-case basis by the Director, Office of Nuclear Reactor Regulation.

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Oconee Units 1, 2, and 3 are participating in the B&W Integrated Reactor Vessel Surveillance Program which is documented in B&W Topical Report BAW-1543, Rev. 2 and 2A. This topical report contains the surveillance capsule withdrawal schedule for Oconee Units 1, 2, and 3. The staff's review of the Topical Report is documented in a March 13, 1986 letter from C. O. Thomas to J. H. Taylor. The staff concluded that the B&W integrated surveillance program, documented in Topical Report BAW-1543, Rev. 2 meets the criteria in Section II.C. of 10 CFR 50, Appendix H and after approval of the integrated surveillance program by the Director, Office of Nuclear Reactor Regulation, exemptions to 10 CFR 50, Appendix H, will no longer be required.

Regulatory Guide 1.99, Rev. 2, "Radiation Damage to Reactor Vessel Materials," which has been reviewed by the staff and has been issued for public comment, indicates that radiation damage is a function of neutron fluence and the amounts of residual elements (copper and nickel) in the material. Hence, an acceptable surveillance program must include withdrawal of capsules at neutron fluence intervals representing the lives of Oconee Units 1, 2, and 3, respectively, and must contain material that can monitor the amount of radiation damage to the limiting material in each of the Oconee Units 1, 2, and 3 reactor vessel beltlines. The required amount of neutron fluence to be received by each capsule in the surveillance program is documented in ASTM E 185-82.

According to B&W Topical Report BAW-1543, Rev. 2 and 2A, there will be six surveillance capsules per Oconee unit. They will be irradiated in the Crystal River Unit 3 Nuclear Reactor, and they will be withdrawn at neutron fluences (E>1MeV) varying from 5.7×10^{17} n/cm^2 to 1.3×10^{19} n/cm^2. The withdrawal schedule for the Oconee Units 1, 2, and 3 capsules in B&W Topical Report BAW-1543, Rev. 2 meets, to the extent practical, the requirements in ASTM E 185-82. The weld metal in the capsules is identified as WF112 for Unit 1 and WF 209-1 for Units 2 and 3. The limiting material in the Unit 1 reactor vessel beltline is identified as weld metal SA1430, Unit 2-WF25, and Unit 3-WF67. Weld metals in the capsules and reactor vessel's beltlines were prepared using the same type of flux and filler wire but different heats and lots. Since these weld metals are from different heats and lots, the amounts of residual elements for each of the weld metals is reported in Babcock & Wilcox Topical Report BAW-1799, "B&W 177-FA Reactor Vessel Beltline Weld Chemistry Study," dated July 1983. By comparing the amounts of radiation damage predicted by Regulatory Guide 1.99 to that observed for the capsule material, we will be able to effectively monitor radiation damage to the Oconee Units 1, 2, and 3 reactor vessel beltlines.

EVALUATION

The capsule withdrawal schedule meets, to the extent practical, the requirements in ASTM E 185-82 and the respective Oconee Units 1, 2, and 3 capsule weld metals can be used to monitor radiation to the Oconee Units 1, 2, and 3 reactor vessel beltlines.

Based on the staff's approval of B&W Topical Report 1543, Rev. 2 and 2A and previous conclusions, we determined it acceptable for Oconee Units 1, 2, and 3 to use the integrated surveillance program that was documented in B&W Topical Report BAW-1543, Rev. 2 and 2A for Oconee Units 1, 2, and 3. Also upon approval by the Director, Office of Nuclear Reactor Regulation, the exemption from Appendix H will be nullified.

Since the licensee has agreed to comply with B&W Topical Report BAW-1543, Revisions 2 and 2A, and with the requirements in 10 CFR 50, Appendix H, we find it acceptable to delete the current reporting requirements and schedule for withdrawal of the respective Oconee Units 1, 2, and 3 reactor vessel surveillance capsules from Technical Specification Sections 4.2.4, 4.2.5, Table 4.2-1 and supporting bases.

ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in reporting requirements. We have determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (52 FR 43024) on October 23, 1985, and consulted with the state of South Carolina. No public comments were received, and the state of South Carolina did not have any comments.

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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.

Principal Contributors: K. Wichman
H. Pastis

Dated: October 19, 1987