NOV 24 1975

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

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

Gentlemen:

The Commission has issued the enclosed Amendment No. 15, Technical Specification Change No. 25 for License No. DPR-38; Amendment No. 15 Technical Specification Change No. 20 for License No. DPR-47; and Amendment No. 12, Technical Specification Change No. 12 for License No. DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3. These amendments are in response to your request dated November 10, 1975.

These amendments provide Oconee Unit 1 control rod position and operational power imbalance limits for four-pump operation applicable to the period after 245 ± 10 Effective Full Power Days of operation.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Thomas V. Wambach

for Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Enclosures:
1. Amendment No. 15 to DPR-38
2. Amendment No. 15 to DPR-47
3. Amendment No. 12 to DPR-55
4. Safety Evaluation
5. Federal Register Notice

cc w/enclosures:
See next page

OFFICE	RL:ORB#1	TR:CPB	OELD	RL:ORB#1		
SURNAME	GGZech:dc	DRoss		RAPurple		
DATE	11/19/75	11/ /75	11/21/75	11/24/75		

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc w/enclosures:
Mr. William L. Porter
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Mr. Troy B. Conner
Conner & Knotts
1747 Pennsylvania Avenue, NW
Washington, D. C. 20006

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

Honorable Reese A. Hubbard
County Supervisor of Oconee County
Walhalla, South Carolina 29621

cc w/enclosures & incoming:
Mr. Elmer Whitten
State Clearinghouse
Office of the Governor
Division of Administration
1295 Pendleton Street
4th Floor
Columbia, South Carolina 29201

Mr. Dave Hopkins
Environmental Protection Agency
1421 Peachtree Street, NE
Atlanta, Georgia 30309

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. 15
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 10, 1975, 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; and

   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.

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

" B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 25."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas V. Wambach

for Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 25 to the
Technical Specifications

Date of Issuance: NOV 24 1975

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. 15
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 10, 1975, 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; and

   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.

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

"B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 20 ."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas V. Wambach

for Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 20 to the
Technical Specifications

Date of Issuance: NOV 24 1975

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. 12
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 10, 1975, 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; and

   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.

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

"B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 12 ."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas V. Wambach

for Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 12 to the
Technical Specifications

Date of Issuance: NOV 24 1975

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 15 TO FACILITY LICENSE NO. DPR-38
CHANGE NO. 25 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 15 TO FACILITY LICENSE NO. DPR-47
CHANGE NO. 20 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 12 TO FACILITY LICENSE NO. DPR-55
CHANGE NO. 12 TO TECHNICAL SPECIFICATIONS

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

Revise Appendix A as follows:

Remove pages 3.5-13 and 3.5-21, and insert revised pages 3.5-13 and 3.5-21.

g. If within one (1) hour of determination of an inoperable rod, it is not determined that a 1%Δk/k hot shutdown margin exists combining the worth of the inoperable rod with each of the other rods, the reactor shall be brought to the hot standby condition until this margin is established.

h. Following the determination of an inoperable rod, all rods shall be exercised within 24 hours and exercised weekly until the rod problem is solved.

i. If a control rod in the regulating or safety rod groups is declared inoperable, power shall be reduced to 60 percent of the thermal power allowable for the reactor coolant pump combination.

j. If a control rod in the regulating or axial power shaping groups is declared inoperable, operation above 60 percent of rated power may continue provided the rods in the group are positioned such that the rod that was declared inoperable is maintained within allowable group average position limits of Specification 3.5.2.2.a and the withdrawal limits of Specification 3.5.2.5.c.

5.2.3 The worths of single inserted control rods during criticality are limited by the restrictions of Specification 3.1.3.5 and the control rod position limits defined in Specification 3.5.2.5. | 25/20/12

5.2.4 Quadrant Power Tilt

a. Whenever the quadrant power tilt exceeds 4 percent, except for physics tests, the quadrant tilt shall be reduced to less than 4 percent within two hours or the following actions shall be taken:

(1) If four reactor coolant pumps are in operation, the allowable thermal power shall be reduced by 2 percent of full power for each 1 percent tilt in excess of 4 percent below the power level cutoff (see Figures 3.5.2-1A1, 3.5.2-1A2, 3.5.2-1B1, 3.5.2-1B2, 3.5.2-1B3, 3.5.2-1C1, 3.5.2-1C2, and 3.5.2-1C3). | 25/20/12

(2) If less than four reactor coolant pumps are in operation, the allowable thermal power shall be reduced by 2 percent of full power for each 1 percent tilt below the power allowable for the reactor coolant pump combination as defined by Specification 2.3.

(3) Except as provided in 3.5.2.4.b, the reactor shall be brought to the hot shutdown condition within four hours if the quadrant tilt is not reduced to less than 4 percent after 24 hours.

b. If the quadrant tilt exceeds 4 percent and there is simultaneous indication of a misaligned control rod per Specification 3.5.2.2, reactor operation may continue provided power is reduced to 60 percent of the thermal power allowable for the reactor coolant

pump combination.

c. Except for physics tests, if quadrant tilt exceeds 9 percent, a controlled shutdown shall be initiated immediately and the reactor shall be brought to the hot shutdown condition within four hours.

d. Whenever the reactor is brought to hot shutdown pursuant to 3.5.2.4.a(3) or 3.5.2.4.c above, subsequent reactor operation is permitted for the purpose of measurement, testing, and corrective action provided the thermal power and the power range high flux setpoint allowable for the reactor coolant pump combination are restricted by a reduction of 2 percent of full power for each 1 percent tilt for the maximum tilt observed prior to shutdown.

e. Quadrant power tilt shall be monitored on a minimum frequency of once every two hours during power operation above 15 percent of rated power.

3.5.2.5 Control Rod Positions

a. Technical Specification 3.1.3.5 does not prohibit the exercising of individual safety rods as required by Table 4.1-2 or apply to inoperable safety rod limits in Technical Specification 3.5.2.2. | 25/20/12

b. Operating rod group overlap shall be 25% $\pm$ 5% between two sequential groups, except for physics tests.

c. Except for physics tests or exercising control rods, the control rod withdrawal limits* are specified on Figures 3.5.2-1A1 and 3.5.2-1A2 (Unit 1) 3.5.2-1B1, 3.5.2-1B2 and 3.5.2-1B3 (Unit 2), and 3.5.2-1C1, 3.5.2-1C2, and 3.5.2-1C3 (Unit 3) for four pump operation and on Figures 3.5.2-2A (Unit 1), 3.5.2-2B (Unit 2), and 3.5.2-2C (Unit 3) for three or two pump operation. If the control rod position limits are exceeded, corrective measures shall be taken immediately to achieve an acceptable control rod position. Acceptable control rod positions shall then be attained within two hours. | 25/20/12

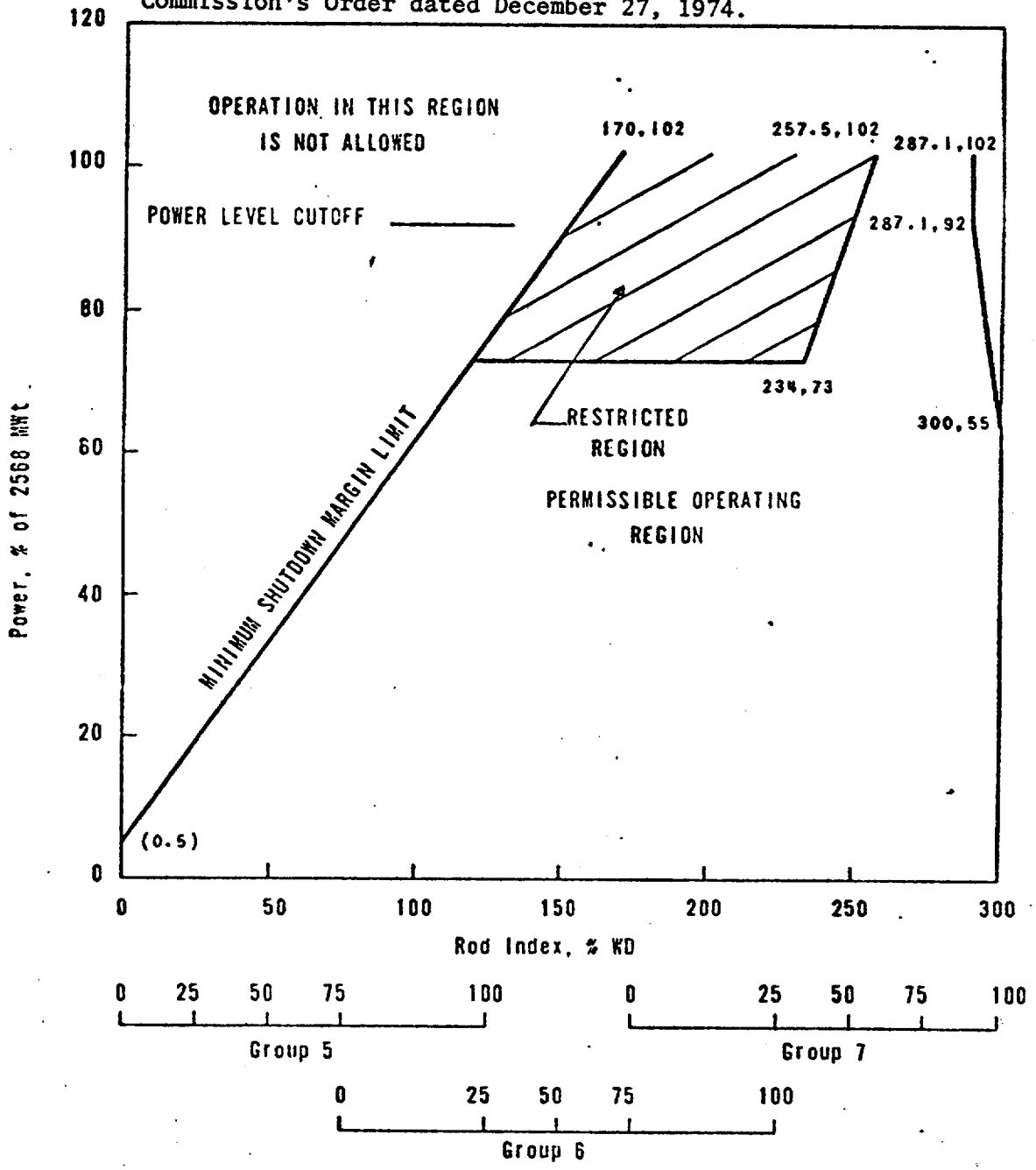
d. Except for physics tests, power shall not be increased above the power level cutoff as shown on Figures 3.5.2-1A1 and 3.5.2-1A2 (Unit 1) [see additional operating restrictions for Unit 1]* 3.5.2-1B1, 3.5.2-1B2, and 3.5.2-1B3 (Unit 2), and 3.5.2-1C1, 3.5.2-1C2, 3.5.2-1C3 (Unit 3, unless the following requirements are met. | 25/20/12

(1) The xenon reactivity shall be within 10 percent of the value for operation at steady-state rated power.

(2) The xenon reactivity shall be asymptotically approaching the value for operation at steady-state rated power.

NOV 2 4 1975

ROD POSITION LIMITS FOR 4 PUMP OPERATION APPLICABLE TO THE PERIOD AFTER 245 ± 10 EFPD, as provided for in the Commission's Order dated December 27, 1974.



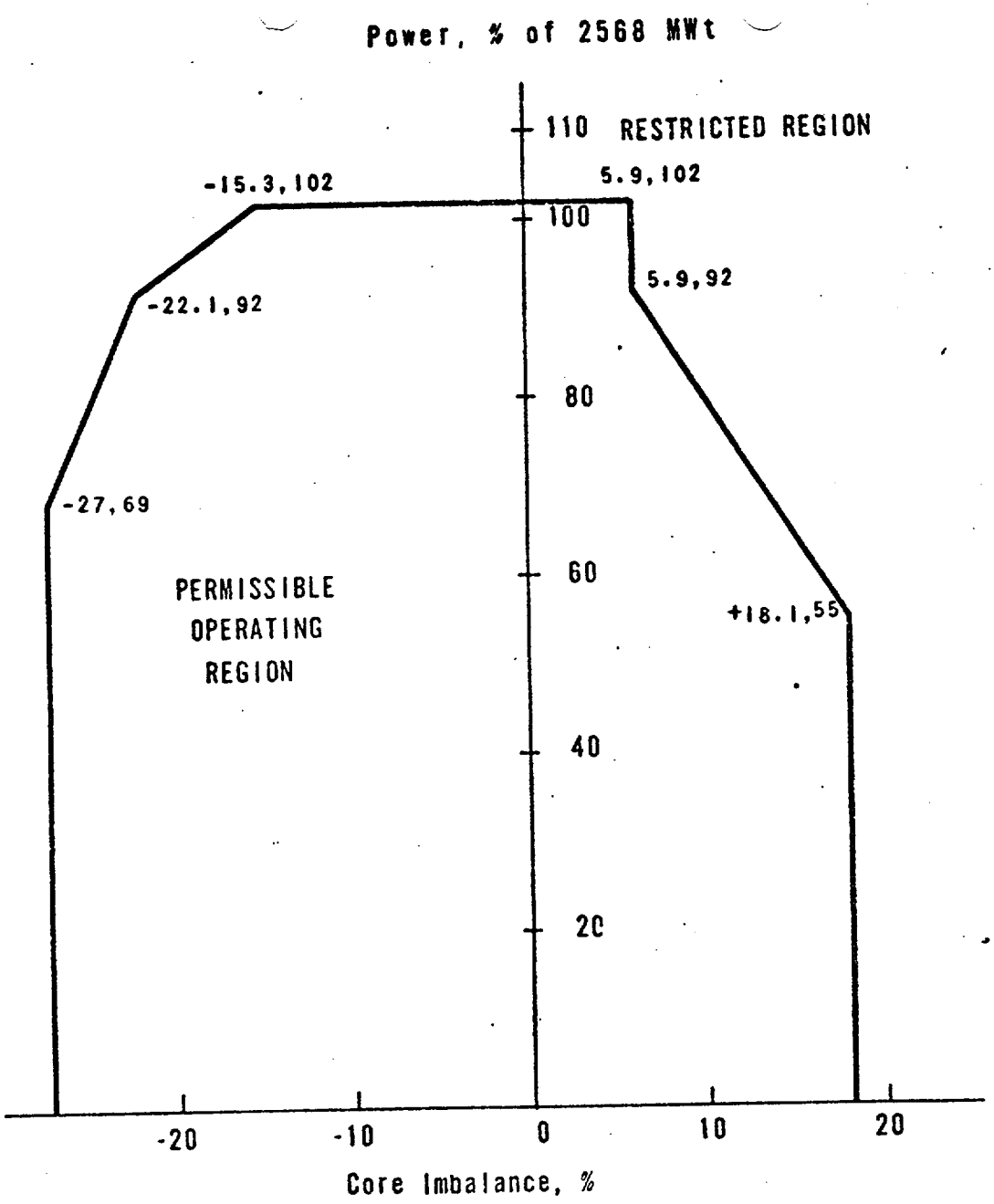
Rod index is the precentage sum of the withdrawal of Groups 5,6 and 7.

UNIT 1
ROD POSITION LIMITS FOR
4 PUMP OPERATION

OCONEE NUCLEAR STATION

Figure 3.5.2-1A2

NOV 24 1975



25/20/12

UNIT 1
OPERATIONAL POWER IMBALANCE ENVELOPE

OCONEE NUCLEAR STATION

Figure 3.5.2-3A

NOV 2 4 1975

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 15 TO FACILITY LICENSE NO. DPR-38
CHANGE NO. 25 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 15 TO FACILITY LICENSE NO. DPR-47
CHANGE NO. 20 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 12 TO FACILITY LICENSE NO. DPR-55
CHANGE NO. 12 TO TECHNICAL SPECIFICATIONS

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

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

Introduction

By letter dated November 10, 1975, Duke Power Company (the licensee) requested a change in the Technical Specifications of Licenses No. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3. The proposed amendments would provide Oconee Unit 1 control rod position (withdrawal) and operational power imbalance limits for four pump operation applicable to the period after 245 ± 10 Effective Full Power Days (EFPD) of operation.

Discussion

On December 27, 1974, the staff issued an Order for Modification of License (the Order) which required that the licensee submit a reevaluation of Oconee Emergency Core Cooling Systems (ECCS) performance and identified the limits for continued reactor operation during the interim. These limits were a combination of existing technical specifications, technical specification changes previously submitted by the licensee, and additional restrictions of Appendix A to the Order. The additional restrictions were considered necessary in order to compensate for deficiencies noted in the Babcock & Wilcox (B&W) ECCS evaluation model and were imposed to assure continued conformance to the criteria of 10 CFR 50.46 until the ECCS reevaluation required by the Order received final approval by the staff.

Figure A-4 of Appendix A to the Order established the control rod withdrawal limits and Figure A-5, the associated power imbalance limits for Oconee Unit 1. Note 2 on Figure A-4 states that "the withdrawal limits are modified after 250 ± 5 full power days of operation". The appropriate limits for operation beyond 250 EFPD were not included in the Order since it was anticipated that staff approval for the limits based on the FAC (Final Acceptance Criteria) for ECCS cooling performance would be issued prior to 250 EFPD of operation of Oconee Unit 1. However, staff evaluation of the licensee's revised FAC submittal is not yet complete and may not be completed before withdrawal of control rod group 7 (presently precluded by Figure A-4) is necessary to maintain full power operation. The licensee has indicated that, based on current boron concentration measurements, Group 7 may be required at 235 EFPD instead of the previously estimated 250 EFPD. Accordingly, the licensee, by application dated November 10, 1975, has requested approval of rod withdrawal limits, and associated power imbalance limits, for operation beyond 245 ± 10 EFPD.

Evaluation

The changes required in the B&W ECCS evaluation model necessitated a series of sensitivity studies by B&W to identify the effect of the model changes on the results of previous calculations affecting the Oconee units. Our review of the results of these studies revealed that the operating restriction for Oconee Unit 1 as identified in Appendix A to the Order would be required to ensure that in the event of a postulated loss-of-coolant accident (LOCA), the ECCS cooling performance would not exceed the values for calculated peak clad temperature and oxidation and hydrogen generation limits set forth in 10 CFR 50.46. These operating restrictions included, among other things, the rod withdrawal and axial power imbalance limits of Figures A-4 and A-5, previously mentioned.

The proposed rod withdrawal and axial power imbalance limits for operation beyond 245 ± 10 EFPD were calculated by the licensee using methods we have previously found acceptable and upon which we relied in establishing the necessary operating restrictions in the Order. We, therefore, conclude that operation of Unit 1 beyond 245 ± 10 EFPD with the proposed rod withdrawal and axial power imbalance limits, and with no change in the other operating restrictions in the Order, will assure that ECCS cooling performance will continue to conform to all of the criteria contained in 10 CFR §50.46(b), which govern calculated peak clad temperature, maximum cladding oxidation, maximum hydrogen generation, coolable geometry and long-term cooling.

The incorporation of these new limits in the technical specifications does not conflict with nor require revision of the Order since with respect to the rod withdrawal limits, the requirement for new limits

(for operation beyond 250 EFPD) was recognized and provided for in the Order and, with respect to the axial power imbalance limits, the new limits are more restrictive than those in the Order.

In summary, we have concluded that the proposed rod withdrawal and power imbalance limits for Oconee Unit 1 meet the requirements of the Order of December 27, 1974, and provide reasonable assurance that the public health and safety would not be endangered. We, therefore, find the proposed amendment to be acceptable.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: NOV 2 4 1975

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendments No. 15, 15, and 12 to Facility Operating Licenses No. DPR-38, DPR-47, and DPR-55, respectively, issued to Duke Power Company which revised Technical Specifications for operation of the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina. The amendments are effective as of the date of issuance.

These amendments provide Oconee Unit 1 control rod position and operational power imbalance limits for four-pump operation applicable to the period after 245 ± 10 Effective Full Power Days of operation.

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 is not required since the amendments do not involve a significant hazards consideration.

OFFICE ▶						
SURNAME ▶						
DATE ▶						

For further details with respect to this action, see (1) the application for amendments dated November 10, 1975, (2) Amendments No. 15, 15, and 12 to Licenses No. DPR-38, DPR-47, and DPR-55, with Changes No. 25, 20, and 12 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, NW., 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 Reactor Licensing.

Dated at Bethesda, Maryland, this NOV 24 1975

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Thomas V. Wambach, Acting Chief
Operating Reactors Branch #1
Division of Reactor Licensing

OFFICE ▶	RL:ORB#1	TR:CPB	OELD	RL:ORB#1		
SURNAME ▶	GGZech:	DRoss	Tourtellotte	RAPurple		
DATE ▶	11/19/75	11/ /75	11/21/75	11/24/75		

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

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

Gentlemen:

The Commission has issued the enclosed Amendment No. 14, Technical Specification Change No. 24 for License No. DPR-38; Amendment No. 14 Technical Specification Change No. 19 for License No. DPR-47; and Amendment No. 11, Technical Specification Change No. [illegible] for License No. DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3. These amendments are in response to your request dated January 15, 1975.

These amendments allow the momentary passage of personnel through the outer door of a containment hatch which is inoperable due to a failed inner door gasket. The momentary passage would be permitted for repair or test of the inner door.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Original signed by
R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Enclosures:
1. Amendment No. 14 to DPR-38
2. Amendment No. 14 to DPR-47
3. Amendment No. 11 to DPR-55
4. Safety Evaluation
5. Federal Register Notice

cc w/enclosures:
See next page

OFFICE	RL:ORB#1	OR:CSB	OELD	RL:ORB#1	
SURNAME	GZech:sb	glainas		RAPurple	
DATE	11/05/75	11/6/75	11/11/75	11/11/75	

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc w/enclosures:
Mr. William L. Porter
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Mr. Troy B. Conner
Conner, Hadlock & Knotts
1747 Pennsylvania Avenue, NW
Washington, D. C. 20006

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

Honorable Reese A. Hubbard
County Supervisor of Oconee County
Walhalla, South Carolina 29621

cc w/enclosures & incoming:
Mr. Elmer Whitten
State Clearinghouse
Office of the Governor
Division of Administration
1295 Pendleton Street
4th Floor
Columbia, South Carolina 29201

Mr. Dave Hopkins
Environmental Protection Agency
1421 Peachtree Street, NE
Atlanta, Georgia 30309

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. 14
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 January 15, 1975, 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; and

   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.

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

" B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 2 4 ."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 2 4 to the
Technical Specifications

Date of Issuance: NOV 1 1 1975

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. 14
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 January 15, 1975, 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; and

   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.

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

"B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 19 ."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 19 to the
Technical Specifications

Date of Issuance: November 11, 1975

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. 11
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 January 15, 1975, 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; and

   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.

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

"B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 11."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 11 to the
Technical Specifications

Date of Issuance: November 11, 1975

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-38
CHANGE NO. 24 TO TECHNICAL SPECIFICATIONS.

AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-47
CHANGE NO. 19 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 11 TO FACILITY LICENSE NO. DPR-55
CHANGE NO. 11 TO TECHNICAL SPECIFICATIONS

DOCKET NOS. 50-260, 50-270, AND 50-287

Revise Appendix A as follows:

Remove pages 3.6-1 and 3.6-2 and insert identically numbered pages.

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DATE ➤						

3.6 REACTOR BUILDING

Applicability

Applies to the containment when the reactor is subcritical by less than 1% Δk/k.

Objective

To assure containment integrity during startup and operation.

Specification

3.6.1 Containment integrity shall be maintained whenever all three (3) of the following conditions exist:

a. Reactor coolant pressure is 300 psig or greater
b. Reactor coolant temperature is 200°F or greater
c. Nuclear fuel is in the core

3.6.2 Containment integrity shall be maintained when the reactor coolant system is open to the containment atmosphere and the requirements for a refueling shutdown are not met.

3.6.3 The containment integrity shall be intact whenever positive reactivity insertions which would result in the reactor being subcritical by less than 1% Δk/k are made by control rod motion or boron dilution.

3.6.4 Exceptions to 3.6.1, 3.6.2, and 3.6.3 shall be as follows:

a. If either the personnel or emergency hatches become inoperable, except as a result of an inoperable door gasket, the hatch shall be restored to an operable status within 24 hours, or the reactor shall be in cold shutdown within the next 36 hours.

If a hatch is inoperable due to an inoperable door gasket:

1. The remaining door of the affected hatch shall be closed and sealed. If the inner door gasket is inoperable, momentary passage (not to exceed 10 minutes for each opening) is permitted through the outer door for repair or test of the inner door, provided that the outer door gasket is leak tested within 24 hours after opening of the outer door.

24/19/11

2. The hatch shall be restored to operable status within seven days or the reactor shall be in cold shutdown within the next 36 hours.

b. A containment isolation valve may be inoperable provided either:

1. The inoperable valve is restored to operable status within four hours.

2. The affected penetration is isolated within four hours by the use of a deactivated automatic valve secured and locked in the isolated position.

3. The affected penetration is isolated within four hours by the use of a closed manual valve or blind flange.

4. The reactor is in the hot shutdown condition within 12 hours and cold shutdown within 24 hours.

3.6.5 The reactor building internal pressure shall not exceed 1.5 psig or five inches of Hg if the reactor is critical.

3.6.6 Prior to criticality following refueling shutdown, a check shall be made to confirm that all manual containment isolation valves which should be closed are closed and tagged.

Bases

The Reactor Coolant System conditions of cold shutdown assure that no steam will be formed and hence no pressure buildup in the containment if the Reactor Coolant System ruptures.

The selected shutdown conditions are based on the type of activities that are being carried out and will preclude criticality in any occurrence.

The reactor building is designed for an internal pressure of 59 psig and an external pressure 3.0 psi greater than the internal pressure. The design external pressure of 3.0 psi corresponds to a margin of 0.5 psi above the differential pressure that could be developed if the building is sealed with an internal temperature of 120°F with a barometric pressure of 29.0 inches of Hg and the building is subsequently cooled to an internal temperature of 80°F with a concurrent rise in barometric pressure to 31.0 inches of Hg. The weather conditions assumed here are conservative since an evaluation of National Weather Service records for this area indicates that from 1918 to 1970 the lowest barometric pressure recorded is 29.05 inches of Hg and the highest if 30.85 inches of Hg.

Operation with a personnel or emergency hatch inoperable does not impair containment integrity since either door meets the design specifications for structural integrity and leak rate. Momentary passage through the outer door is necessary should the inner door gasket be inoperative to install or remove auxiliary restraint beams on the inner door to allow testing of the hatch. The time limits imposed permit completion of maintenance action and the performance of a local leak rate test when required or the orderly shutdown and cooldown of the reactor. Timely corrective action for an inoperable containment isolation valve is also specified. 24/19/11

When containment integrity is established, the limits of 10CFR100 will not be exceeded should the maximum hypothetical accident occur.

REFERENCES

FSAR, Section 5

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-38
CHANGE NO. 24 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 14 TO FACILITY LICENSE NO. DPR-47
CHANGE NO. 19 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 11 TO FACILITY LICENSE NO. DPR-55
CHANGE NO. 11 TO TECHNICAL SPECIFICATIONS

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3

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

Introduction

By letter dated January 15, 1975, Duke Power Company (the licensee) requested a change in the Technical Specifications of Licenses No. DPR-38, DPR-47, and DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3. The proposed amendments would allow the momentary passage of personnel through the operable door of a containment hatch which is inoperable due to a failed door gasket. The momentary passage would be allowed to repair and test the inoperable door and to expedite the return of the hatch to an operable status.

Discussion

The present Technical Specifications contain requirements to assure containment integrity during plant startup and operation. The requirements are imposed to assure that, in the event of the maximum hypothetical accident, the consequent release of radioactive contamination and resultant personnel exposures would be less than the limits of 10 CFR Part 100.

The containment structure for each of the Oconee units has a personnel hatch for normal access and an emergency hatch for use in the event the personnel hatch becomes inoperable. Operation of either of the hatches during time periods when containment integrity is required is possible since either the inner or outer door of the hatch meets the design specifications for structural integrity and leak rate requirements.

In the event either the personnel or emergency hatch becomes inoperable as the result of a failed or inoperable door gasket, the present Technical Specifications require the following:

(1) The remaining door of the affected hatch shall be closed and sealed, and

(2) The hatch shall be restored to operable status within seven days or the reactor shall be in cold shutdown within the next 36 hours.

A failed gasket is most likely to be identified during the performance of a hatch leak rate test which is required to be performed periodically in order to verify that the design criteria continue to be met.

In the event a containment hatch becomes inoperable due to a failed door gasket, the licensee's proposal would allow momentary passage of personnel through the operable door in order to repair and test the inoperable door.

Evaluation

The licensee's original proposal of January 15, 1975, described a potential problem which appeared to cause some inconvenience but did not preclude the timely completion of repairs. We initially concluded that in the event a containment hatch became inoperable due to a failed door gasket, an alternate means of personnel access would be available through the other containment hatch (personnel or emergency) which was still operable. This appeared to provide both access to the containment as plant operation required, and in the event the failed gasket was on the inner door, access to that area to effect repairs. By letter dated February 19, 1975, we advised the licensee of our concern and requested that the proposal be reevaluated with a view toward furnishing additional analysis and justification to assure no undue risk to public health and safety.

By letter dated June 27, 1975, the licensee responded to our request and provided a more detailed evaluation of the problem. As described by the licensee, the hatch leak rate tests are performed by pressurizing the hatch between the inner and outer doors to the test pressure of 59 psig. This tends to seat the outer door and unseat the inner door. In order to perform the test, it is therefore necessary to install a restraint or strongback on the hatch side of the inner door to keep the inner door seated. Should the leak rate test fail due to an inoperable inner door gasket, it would not be possible to enter the hatch (1) from the Reactor Building side because of the strongback installed on the hatch side of the door; and (2) from the outer door side because of the current Technical Specifications which restrict access through the outer door, as discussed earlier. Since repair of the inner door gasket is not possible under these conditions, the hatch cannot be restored to an operable status and shut down and cooldown of the reactor would be required.

Should a failure of the outer gasket occur during a leak rate test, an access problem would not exist as the inner door would provide the containment integrity required while the outer door gasket is repaired. The licensee has agreed to make the proposed change applicable only to those situations in which the inner door gasket has failed. The proposed amendment has been modified to reflect this agreement.

By allowing momentary passage of personnel through the operable door of the hatch, as is proposed by the licensee, repairs to the inner door gasket would be possible followed by a verifying leak rate test. In reevaluating the proposed amendment, the following points were determined to be pertinent and significant.

(1) The hatch leak rate tests are performed quarterly and the inner door gasket does not fail frequently during the test.

(2) The probability of an accident that would require containment integrity during the brief interval that the outer door is open is very remote.

(3) The inner door of the hatch would remain shut during the brief interval the outer door is open and, even with a failed gasket, would limit containment leakage in the unlikely event of an accident requiring containment integrity. Additionally, the pressures involved in such an accident would tend to seat the inner door and further limit leakage.

(4) The hatch interlock system prevents opening both the outer and inner door at the same time.

(5) All other specifications would remain in effect, in particular the requirement to commence shut down and cooldown if the hatch cannot be restored to operation within seven days.

(6) In order to provide further assurance that containment outer door integrity is maintained when the inner door seal is inoperable, we have added the requirement, with which the licensee agrees, that the outer door gasket be leak-tested within 24 hours after opening of the outer door while the inner door gasket is being repaired.

In view of the above, we have concluded that allowing the momentary passage of personnel under the conditions described does not constitute an undue risk to the public health. We, therefore, find the proposed amendment to be acceptable.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: NOV 1 1 1975

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendments No. 14, 14, and 11 to Facility Operating Licenses No. DPR-38, DPR-47, and DPR-55, respectively, issued to Duke Power Company which revised Technical Specifications for operation of the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina. The amendments are effective as of the date of issuance.

These amendments allow the momentary passage of personnel through the outer door of a containment hatch which is inoperable due to a failed inner door gasket. The momentary passage would be permitted for repair or test of the inner door.

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 is not required since the amendments do not involve a significant hazards consideration.

For further details with respect to this action, see (1) the application for amendments dated January 15, 1975, (2) Amendments No. 14, 14 and 11 to Licenses No. DPR-38, DPR-47, and DPR-55, with Changes No. 24, 19, and 11, 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, NW., 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 Reactor Licensing

Dated at Bethesda, Maryland, this NOV 11 1975

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

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