

OCT 23 1974

Docket No. 50-269

50-270

and 50-287

Duke Power Company  
ATTN: Mr. Austin C. Thies  
Senior Vice President  
422 South Church Street  
Post Office Box 2178  
Charlotte, North Carolina 28201

Gentlemen:

The Commission has issued the enclosed Amendment No. 5, Technical Specification Change No. 15 for License No. DPR-38; Amendment No. 5, Technical Specification Change No. 10 for License No. DPR-47; and Amendment No. 2, Technical Specification Change No. 2 for License No. DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3. These amendments are in response to your request dated September 4, 1974.

These amendments prescribe the action required should a containment personnel hatch, emergency hatch, or isolation valve become inoperative or require maintenance when the plant is in an operating condition.

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

Sincerely,

Original signed by:  
Robert A. Purple

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

Enclosures:

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

cc: See next page

OCT 23 1974

Duke Power Company

- 2 -

cc w/enclosures:

Mr. William L. Porter  
Duke Power Company  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28201

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

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

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

cc w/enclosures & Duke's ltr.  
dtd. 9/4/74:

Mr. Elmer Whitten  
State Clearinghouse  
Office of the Governor  
Division of Administration  
1205 Pendleton Street  
4th Floor  
Columbia, South Carolina 29201

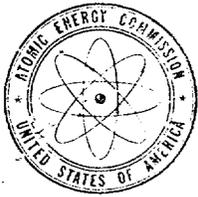
Mr. Dave Hopkins  
Environmental Protection Agency  
1421 Peachtree Street, NE.  
Atlanta, Georgia 30309

bcc: H. J. McAlduff, OROO  
J. R. Buchanan, ORNL  
T. B. Abernathy, DTIE

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UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5  
License No. DPR-38

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by Duke Power Company (the licensee) dated September 4, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
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. 15."

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

FOR THE ATOMIC ENERGY COMMISSION

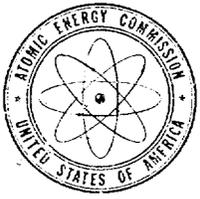
Original Signed by  
Karl Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 15 to Technical  
Specifications

Date of Issuance:

OCT 23 1974



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5  
License No. DPR-47

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by Duke Power Company (the licensee) dated September 4, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
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. 10."

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

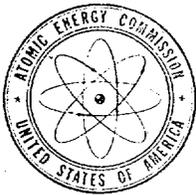
FOR THE ATOMIC ENERGY COMMISSION

Original Signed by  
Karl Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 10 to Technical  
Specifications

Date of Issuance: OCT 23 1974



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 2  
License No. DPR-55

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by Duke Power Company (the licensee) dated September 4, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
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. 2."

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

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by  
Karl Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 2 to Technical  
Specifications

Date of Issuance: **OCT 23 1974**

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 5 TO FACILITY LICENSE NO. DPR-38,  
CHANGE NO. 15 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 5 TO FACILITY LICENSE NO. DPR-47,  
CHANGE NO. 10 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 2 TO FACILITY LICENSE NO. DPR-55,  
CHANGE NO. 2 TO TECHNICAL SPECIFICATIONS;

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

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

Revise Appendix A as follows:

Replace pages 3.6-1 and 3.6-2 with the attached pages.

OFFICE >						
SURNAME >						
DATE >						

## 3.6 REACTOR BUILDING

Applicability

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

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%  $\Delta k/k$  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.
    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.

15/10/2

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.

15/10/2

#### 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 is 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. 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.

15/10/2

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  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING

SUPPORTING AMENDMENT NO. 5 TO FACILITY LICENSE NO. DPR-38  
CHANGE NO. 15 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 5 TO FACILITY LICENSE NO. DPR-47  
CHANGE NO. 10 TO TECHNICAL SPECIFICATIONS;

AMENDMENT NO. 2 TO FACILITY LICENSE NO. DPR-55  
CHANGE NO. 2 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 September 4, 1974, Duke Power Company requested changes to the Technical Specifications appended to Facility Operating Licenses No. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station. The proposed changes involve the action to be taken should a containment personnel hatch, emergency hatch, or isolation valve become inoperative or require maintenance when the plant is in an operating condition.

Discussion

Air locks are provided to allow personnel to enter the containment when the plant is operational without violating containment integrity. Both the inner and outer doors on these air locks meet the design specifications for structural integrity and leak rate. This design feature allows one door to be open without violating containment integrity.

Containment integrity presently requires that all isolation valves be operable, locked closed, or secured by a blind flange. Should an isolation valve be found to be inoperable, prompt action is necessary either to repair the valve, secure the valve, or shut down the reactor.

The current Technical Specifications do not permit continued operation should a containment personnel hatch, emergency hatch, or isolation valve become inoperative when the plant is in an operating condition. However, the allowable times for remedial action are not specified. This proposed change would prescribe the time allowable for remedial action and specify the action that must be taken should the equipment be inoperative at the end of this period.

#### Evaluation

In reviewing this request, the staff determined that it was not the original intent of the Technical Specifications to preclude timely remedial action to restore inoperative containment doors and isolation valves to an operable condition.

The proposed Technical Specification change would add a new Section 3.6.4 as follows:

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 inoperative, except as a result of an inoperative 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 inoperative due to an inoperative door gasket:

1. The remaining door of the affected hatch shall be closed and sealed.
  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 inoperative provided either:
    1. The inoperative 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.

These limitations are consistent with the current staff position as represented by technical specifications being issued with new operating licenses.

This proposed change was also reviewed to determine the effect on containment integrity. In the case of a defective air lock door or gasket, Section 5.1.4.4 of the Oconee Final Safety Analysis Report states that the personnel air lock doors are designed to withstand all reactor building design conditions with either one or both doors closed. These doors are equipped with interlocks which prevent both doors being open at the same time. Thus, continued operation with a defective door for the very short periods of time allowed for repair does not represent a significant degradation of safety margin.

The containment isolation system is addressed in the Oconee Final Safety Analysis Report. Section 5.2.1 states that no single failure of an active component could result in a loss of isolation or intolerable leakage. Thus, with this available redundancy, continued operation of the reactor with an inoperable isolation valve for the very short period of time allowed for repair (four hours) does not represent a significant degradation of safety margin.

Based on this review, the staff concluded that the containment integrity assumed in the design basis loss of coolant accident analysis will not be jeopardized by this change and that the probability or consequence of an accident will not be significantly affected.

#### Conclusion

We have concluded, based on the reasons discussed above, that the authorization of these changes does not involve a significant hazards consideration. We also conclude that there is reasonable assurance (i) that the activities authorized by these amendments 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 the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

OCT 23 1974

UNITED STATES ATOMIC ENERGY 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. Atomic Energy Commission (the Commission) has issued Amendments No. 5, 5, and 2 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 prescribe the action required should a containment personnel hatch, emergency hatch, or isolation valve become inoperative or require maintenance when the plant is in an operating condition.

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.

For further details with respect to this action, see (1) the application for amendments dated September 4, 1974, (2) Amendments No. 5, 5, and 2 to Licenses No. DPR-38, DPR-47, and DPR-55, with any attachments, 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. Atomic Energy Commission, Washington, D.C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this **OCT 23 1974**

**FOR THE ATOMIC ENERGY COMMISSION**

Original signed by:  
Robert A. Purple

**Robert A. Purple, Chief  
Operating Reactors Branch #1  
Directorate of Licensing**

OFFICE ➤						
SURNAME ➤						
DATE ➤						