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U.S. NUCLEAR REGULATORY COMMISSION

DOCKET NUMBER 50-269/270/287

FILE NUMBER

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TO: B.C. Rusche

FROM: Duke Power Co.
Charlotte, N.C.
W.O. Parker, Jr.

DATE OF DOCUMENT 2-5-76

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DESCRIPTION
Ltr. notarized 2-5-76... trans the following.

ENCLOSURE
Proposed Amdt. to Appendix A deleting Tech. Spec. 3.3.7. to assure containment integrity durning shutdown (other than refueling shutdow startup and operation.....

(40 Cys. REceived)

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Oconee # 1,2,3,

SAB 2-17-76

FOR ACTION/INFORMATION

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CONTROL NUMBER 1413

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

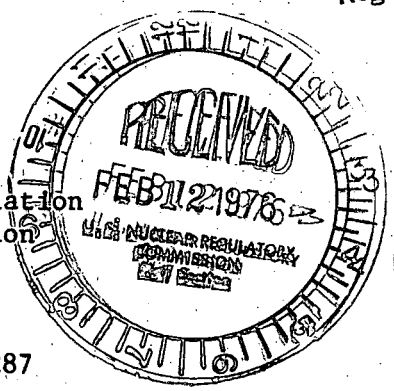
WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

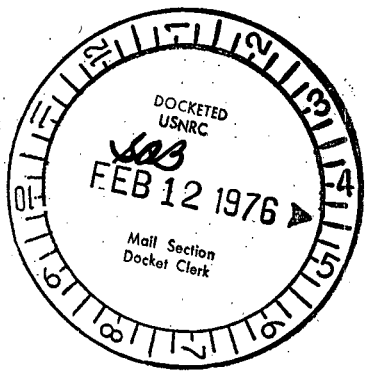
TELEPHONE: AREA 704
373-4083

File Cy.

Regulatory

February 5, 1976





Mr. Benard C. Rusche
Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. Rusche:

Pursuant to 10 CFR 50 § 50.90, changes to Sections 3.6 and 3.3 of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, -47 and -55 are requested. The proposed changes are indicated on the attached Technical Specification replacement page. The justification for these changes are provided below:

The applicability and objective statements of Specification 3.6 have been revised such that this specification will apply in all modes of system operation, i.e., shutdown, startup and operation, except refueling shutdown. This will eliminate the present ambiguity which exists in determining the applicability of this specification. Specifications 3.8.4 and 1.2.6 address the reactor conditions, in lieu of containment integrity conditions, which must be maintained during a refueling shutdown.

The current Specification 3.6.2, which requires containment integrity when the Reactor Coolant System is open to the containment atmosphere and the requirements for a refueling shutdown are not met, has been deleted. Specification 3.8.4 requires that the conditions for a refueling shutdown be maintained during reactor vessel head removal. Routine maintenance which requires opening of the Reactor Coolant System to the containment atmosphere, such as instrument replacements, reactor coolant pump maintenance, etc., do not involve the possibility of reactivity insertion accidents; therefore, containment integrity is not necessary at all times when the Reactor Coolant System is open.

A new Specification 3.6.2 is proposed which will require containment integrity when the reactor is subcritical by less than 1% $\Delta k/k$ or when reactivity insertions are being made which would result in the reactor's being subcritical by less than 1% $\Delta k/k$.

The deletion of Technical Specification 3.3.7 eliminates the requirement to test redundant components prior to removal from service of one train of low pressure injection, high pressure injection, reactor building spray, low pressure service water, reactor building cooling, or penetration room ventilation. Periodic surveillance is conducted on these systems and the surveillance interval provides assurance of operability. Testing of the redundant component of a system prior to initiating maintenance on a train can consume a considerable portion of the allowed maintenance period and in some cases could be deleterious to the system operability. The allowed maintenance periods in conjunction with periodic surveillance provide an acceptably low probability of failure of the redundant component.

Very truly yours,

s/William O. Parker, Jr.

William O. Parker, Jr.

MST:mmb

W. O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, DPR-47 and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

s/W. O. Parker, Jr.

W. O. Parker, Jr., Vice President

ATTEST:

s/John C. Goodman, Jr.

John C. Goodman, Jr.
Assistant Secretary

Subscribed and sworn to before me this 5th day of February 1976.

s/Edna B. Farmer

Notary Public

My Commission Expires:

October 24, 1977

3.6 REACTOR BUILDING

Applicability

Applies to the containment when the reactor is in conditions other than refueling shutdown.

Objective

To assure containment integrity during shutdown (other than refueling shutdown), 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 whenever the reactor is subcritical by less than 1% $\Delta k/k$ or whenever positive reactivity insertions are being made which would result in the reactor being subcritical by less than 1% $\Delta k/k$.

3.6.3 Exceptions to 3.6.1 and 3.6.2 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.
   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.

3.3.6 Exceptions to 3.3.5 shall be as follows:

(a) Both core flooding tanks shall be operational above 800 psig.

(b) Both motor-operated valves associated with the core flooding tanks shall be fully open above 800 psig.

(c) One pressure instrument channel and one level instrument channel per core flood tank shall be operable above 800 psig.

(d) One reactor building cooling fan and associated cooling unit shall be permitted to be out of service for seven days provided both reactor building spray pumps and associated spray nozzle headers are in service at the same time.

Bases

The requirements of Specification 3.3 assure that, before the reactor can be made critical, adequate engineered safety features are operable. Two high pressure injection pumps and two low pressure injection pumps are specified. However, only one of each is necessary to supply emergency coolant to the reactor in the event of a loss-of-coolant accident. Both core flooding tanks are required as a single core flood tank has insufficient inventory to reflood the core. (1)

The borated water storage tanks are used for two purposes:

(a) As a supply of borated water for accident conditions.

(b) As a supply of borated water for flooding the fuel transfer canal during refueling operation. (2)

Three-hundred fifty thousand (350,000) gallons of borated water (a level of 46 feet in the BWST) are required to supply emergency core cooling and reactor building spray in the event of a loss-of-core cooling accident. This amount fulfills requirements for emergency core cooling. The borated water storage tank capacity of 388,000 gallons is based on refueling volume requirements. Heaters maintain the borated water supply at a temperature to prevent freezing. The boron concentration is set at the amount of boron required to maintain the core 1 percent subcritical at $70^{\circ}F$ without any control rods in the core. This concentration is 1,338 ppm boron while the minimum value specified in the tanks is 1,800 ppm boron.

When the reactor is critical, maintenance is allowed per Specification 3.3.5 and 3.3.6. Operability of the specified components is assured by periodic surveillance testing as required by Technical Specification 4.5. The maintenance period of up to 24 hours is acceptable, based on a low likelihood of failure of redundant equipment during that period.

It has been shown for the worst design basis loss-of-coolant accident (a 14.1 ft^2 hot leg break) that the reactor building design pressure will not be exceeded with one spray and two coolers operable. Therefore, a maintenance period of seven days is acceptable for one reactor building cooling fan and its associated cooling unit. (3)

In the event that the need for emergency core cooling should occur, functioning of one train (one high pressure injection pump, one low pressure injection pump, and both core flooding tanks) will protect the core and in the event of a main coolant loop severence, limit the peak clad temperature to less than 2,300°F and the metal-water reaction to that representing less than 1 percent of the clad.

Three low pressure service water pumps serve Oconee Units 1 and 2 and two low pressure service water pumps serve Oconee Unit 3. There is a manual cross-connection on the supply headers for Units 1, 2, and 3. One low pressure service water pump per unit is required for normal operation. The normal operating requirements are greater than the emergency requirements following a loss-of-coolant accident.

A single train of reactor building penetration room ventilation equipment retains full capacity to control and minimize the release of radioactive materials from the reactor building to the environment in post-accident conditions.

REFERENCES

(1) FSAR, Section 14.2.2.3
(2) FSAR, Section 9.5.2
(3) FSAR, Supplement 13
(4) FSAR, Section 6.4