

**NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
(TEMPORARY FORM)

CONTROL NO. 9996

FILE: \_\_\_\_\_

FROM: Duke Power Co. Charlotte, N.C. William O. Parker, Jr.		DATE OF DOC 9-12-75	DATE REC'D 9-19-75	LTR xxx	TWX	RPT	OTHER
TO: Mr. Roger S. Boyd		ORIG not signed	CC 1	OTHER	SENT NRC PDR _____ SENT LOCAL PDR _____		
CLASS	UNCLASS xxx	PROP INFO	INPUT	NO CYS REC'D 37	DOCKET NO: 50-287		
DESCRIPTION: Pursuant to 10CFR50, Section 50.90, Duke Power Co. herewith submits this application for amdt of the Oconee Nuclear Station, Unit #3 Facility Operating License DPR-55 .....amdt consists of modification for replacing the existing fuel storage racks .....notarized 9-12-75 .....trans the following: PLANT NAME: Oconee #3				ENCLOSURES: <b>ACKNOWLEDGED</b> Unit #3- Spent Fuel Storage Facility Modification Safety Analysis Report  ( 37 cys enc'l rec'd)  <b>DO NOT REMOVE</b> <i>Sept</i>			

**FOR ACTION/INFORMATION**

9-22-75 JGB

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies	REID (L) W/ COPIES
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies	
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	<b>SPIES</b> W/ Copies	
KNIEL (L) W/ Copies	<del>PURPLE (L)</del> W/ Copies	YOUNGBLOOD (E) W/ Copies	<del>LPM</del> W/ Copies	

**INTERNAL DISTRIBUTION**

<del>REG FILE</del>	TECH REVIEW	DENTON	LIC ASST	A/T IND
✓ NRC PDR	SCHROEDER	GRIMES	R. DIGGS (L)	BRAITMAN
✓ OGC, ROOM P-506A	MACCARY	GAMMILL	H. GEARIN (L)	SALTZMAN
✓ GOSSICK/STAFF	KNIGHT	KASTNER	E. GOULBOURNE (L)	MELTZ
CASE	PAWLICKI	BALLARD	P. KREUTZER (E)	
GIAMBUSSO	SHAO	SPANGLER	J. LEE (L)	PLANS
BOYD	STELLO		M. RUSHBROOK (L)	MCDONALD
MOORE (L)	HOUSTON	ENVIRO	S. REED (E)	CHAPMAN
DEYOUNG (L)	NOVAK	MULLER	M. SERVICE (L)	✓ BOBE (Ltr)
SKOVHOLT (L)	ROSS	DICKER	✓ S. SHEPPARD (L)	E. COUPE
GOLLER (L) (Ltr)	IPPOLITO	KNIGHTON	M. SLATER (E)	PETERSON
P. COLLINS	TEDESCO	YOUNGBLOOD	H. SMITH (L)	HARTFIELD (2)
DENISE	J. COLLINS	REGAN	S. TEETS (L)	KLECKER
✓ REG OPR	LAINAS	PROJECT LDR	G. WILLIAMS (E)	EISENHUT
FILE & REGION (2)	BENAROYA	<del>M. Au</del>	V. WILSON (L)	WIGGINTON
MIPC	VOLLMER	HARLESS	R. INGRAM (L)	
			M. DUNCAN (E)	

**EXTERNAL DISTRIBUTION**

- ✓ LOCAL PDR Walhalla, S.C.
  - ✓ TIC (ABERNATHY) (1)(2)(10) - NATIONAL LABS \_\_\_\_\_
  - ✓ NSIC (BUCHANAN) 1 - W. PENNINGTON, Rm E-201 GT
  - 1 - ASLB 1 - CONSULTANTS
  - 1 - Newton Anderson
  - 1 - ACRS \_\_\_\_\_/SENT
  - 1 - PDR-SAN/LA/NY
  - 1 - BROOKHAVEN NAT LAB
  - 1 - G. ULRIKSON ORNL
  - NEWARK/BLUME/AGBABIAN
- 76 to L.A.*

DUKE POWER COMPANY <sup>Regulatory</sup>

File Cy.

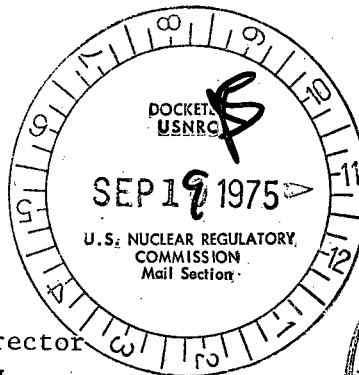
POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

TELEPHONE: AREA 704  
373-4083

September 12, 1975



Mr. Roger S. Boyd, Acting Director  
Division of Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Oconee Nuclear Station  
Unit 3  
Docket No. 50-287

Dear Mr. Boyd:

Pursuant to 10CFR50, Section 50.90, Duke Power Company herewith submits this application for amendment of the Oconee Nuclear Station, Unit 3, Facility Operating License DPR-55.

The proposed amendment relates to modification of the Unit 3 spent fuel storage facility. The modification provides for replacing the existing fuel storage racks with the Combustion Engineering, Incorporated, supplied High Capacity Fuel Assembly Storage Rack. The new fuel storage rack would increase the fuel storage capacity of the Unit 3 spent fuel pool from 216 to 474 fuel assemblies.

The attached safety analysis report contains details of the design, design analysis, and safety evaluation of the proposed modification.

The proposed modification has been reviewed by the Duke Power Company Nuclear Safety Review Committee and the committee concurs that the modification does not constitute any significant hazards to the public.

Since the present Technical Specifications on fuel storage are based on the existing fuel storage rack design, Technical Specifications 5.4.1.1 and 5.4.2.1 require revision prior to implementation of this modification. Proposed changes to Technical Specifications 5.4.1.1 and 5.4.2.1 are identified by vertical lines in the margin of the attached replacement pages 5.4-1 and 5.4-1a of the Oconee Nuclear Station Technical Specifications.

9996

Mr. Roger S. Boyd  
Page 2  
September 12, 1975

Inasmuch as this proposed modification is to be effected prior to the Unit 3 refueling, we request that approval of the proposed modification and revision to Technical Specifications 5.4.1.1 and 5.4.2.1 be granted by November 1, 1975.

Forty copies of this request, including three signed originals, are enclosed.

Very truly yours,

s/William O. Parker, Jr.  
William O. Parker, Jr.

MST:vr

Enclosures

Mr. Roger S. Boyd  
Page 3  
September 12, 1975

WILLIAM 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/William O. Parker, Jr.  
William O. Parker, Jr., Vice President

ATTEST:

s/John C. Goodman, Jr.  
John C. Goodman, Jr.  
Assistant Secretary  
(Seal)

Subscribed and sworn to before me this 12th day of September, 1975.

s/Edna B. Farmer  
Notary Public  
(Notarial Seal)

My Commission Expires:

October 24, 1977

## 5.4 NEW AND SPENT FUEL STORAGE FACILITIES

### Specification

#### 5.4.1 New Fuel Storage

- 5.4.1.1 New fuel will normally be stored in the spent fuel pool serving the respective unit.

In the spent fuel pool serving Units 1 and 2, the fuel assemblies are stored in racks in parallel rows, having a nominal center-to-center distance of 21 inches in both directions. This spacing is sufficient to maintain a K effective of less than 0.9 when flooded with unborated water, based on fuel with an enrichment of 3.5 weight percent U<sup>235</sup>.

In the spent fuel pool serving Unit 3, the fuel assemblies are stored in racks consisting of stainless steel cavities which maintain a minimum edge-to-edge spacing of 3.95 inches between adjacent fuel assemblies. The neutron poisoning effect of the storage cavity material combined with the minimum 3.95 inches edge-to-edge spacing between adjacent fuel assemblies is sufficient to maintain a K effective of less than 0.95 when flooded with unborated water, based on fuel with an enrichment of 3.5 weight percent U<sup>235</sup> or the equivalent.

- 5.4.1.2 New fuel may also be stored in the fuel transfer canal. The fuel assemblies are stored in five racks in a row having a nominal center-to-center distance of 2' 1 3/4". One rack is oversized to receive a failed fuel assembly container. The other four racks are normal size and are capable of receiving new fuel assemblies.

- 5.4.1.3 New fuel may also be stored in shipping containers.

#### 5.4.2 Spent Fuel Storage

- 5.4.2.1 Irradiated fuel assemblies will be stored, prior to offsite shipment, in a stainless steel lined spent fuel pool.

The spent fuel pool serving Units 1 and 2 is sized to accommodate a full core of irradiated fuel assemblies in addition to the concurrent storage of the largest quantity of new and spent fuel assemblies predicted by the fuel management program.

Provisions are made in the Unit 3 spent fuel pool to accommodate up to 474 fuel assemblies.

- 5.4.2.2 Whenever there is fuel in the pool (except the initial core loading), the spent fuel pool is filled with water borated to the concentration that is used in the reactor cavity and fuel transfer canal during refueling operations.

5.4.2.3 Spent fuel may also be stored in storage racks in the fuel transfer canal when the canal is at refueling level.

5.4.2.4 The spent fuel pool and fuel transfer canal racks are designed for an earthquake force of 0.1g ground motion.

REFERENCES

FSAR, Section 9.7