LICENSE AUTHORITY FILE COPY DO NOT REMOVE

AUG 2 6 1992

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

Distribution
See next page

POSTED
Amdt. 196 To DPR-47

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, South Carolina 29679

Dear Mr. Hampton:

SUBJECT: ISSUANCE OF AMENDMENTS - OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 (TACS M83551, M83552 and M83553)

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 196, 196, and 193 to Facility Operating Licenses DPR-38, DPR-47, and DPR-55, respectively, for the Oconee Nuclear Station, Units 1, 2, and 3. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated May 20, 1992.

The amendments are a one-time-only change to enable replacement of the existing 125 volt dc battery cells with new cells.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Leonard A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 196 to DPR-38
2. Amendment No. 196 to DPR-47
3. Amendment No. 193 to DPR-55
4. Safety Evaluation

cc w/enclosures:
See next page

LA:PDII-3	PE:PDII-3	PM:PDII-3	OGC	D:PDII-3
LBerry	SKirkis	LWiens/rst		DMatthews
7/18/92	7/23/92	7/23/92	7/29/92	8/19/92

OFFICIAL RECORD COPY
File Name: C:\OC083551.AMD

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

August 26, 1992

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

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, South Carolina 29679

Dear Mr. Hampton:

SUBJECT: ISSUANCE OF AMENDMENTS - OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3 (TACs M83551, M83552 and M83553)

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 196, 196 , and 193 to Facility Operating Licenses DPR-38, DPR-47, and DPR-55, respectively, for the Oconee Nuclear Station, Units 1, 2, and 3. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 20, 1992.

The amendments are a one-time-only change to enable replacement of the existing 125 volt dc battery cells with new cells.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Leonard A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 196 to DPR-38
2. Amendment No. 196 to DPR-47
3. Amendment No. 193 to DPR-55
4. Safety Evaluation

cc w/enclosures:
See next page

Mr. J. W. Hampton
Duke Power Company

Oconee Nuclear Station

cc:
Mr. A. V. Carr, Esquire
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242-0001

J. Michael McGarry, III, Esquire
Winston and Strawn
1400 L Street, NW.
Washington, DC 20005

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Division
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852

Manager, LIS
NUS Corporation
2650 McCormick Drive, 3rd Floor
Clearwater, Florida 34619-1035

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
Route 2, Box 610
Seneca, South Carolina 29678

Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, NW. Suite 2900
Atlanta, Georgia 30323

Mr. Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. M. E. Patrick
Compliance
Duke Power Company
Oconee Nuclear Site
P. O. Box 1439
Seneca, South Carolina 29679

Mr. Alan R. Herdt, Chief
Project Branch #3
U. S. Nuclear Regulatory Commission
101 Marietta Street, NW. Suite 2900
Atlanta, Georgia 30323

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P. O. Box 629
Raleigh, North Carolina 27602

Mr. R. L. Gill, Jr.
Licensing
Duke Power Company
P. O. Box 1007
Charlotte, North Carolina 28201-1007

DATED: August 26, 1992

AMENDMENT NO. 196 TO OCONEE UNIT 1
AMENDMENT NO. 196 TO OCONEE UNIT 2
AMENDMENT NO. 193 TO OCONEE UNIT 3

DISTRIBUTION:

Docket File	
NRC & Local PDRs	
PD II-3 R/F	
Plant R/F	
S. Varga	14-E-4
D. Matthews	14-H-25
L. Berry	14-H-25
S. Kirslis	14-H-25
L. Wiens	14-H-25
OGC-WF	15-B-18
D. Hagan	MNBB 4702
G. Hill (12)	P1-37
W. Jones	MNBB 7103
C. Grimes	11-F-23
ACRS (10)	P-135
OPA	
OC/LFMB	
E. Merschoff	Region II

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.196
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 May 20, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 I;

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

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 196, 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

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: August 26, 1992

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. 196
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 May 20, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 I;

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

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 196 , 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

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: August 26, 1992

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. 193
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 May 20, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 I;

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

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 193, 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

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: August 26, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 196

FACILITY OPERATING LICENSE NO. DPR-38

DOCKET NO. 50-269

AND

TO LICENSE AMENDMENT NO.196

FACILITY OPERATING LICENSE NO. DPR-47

DOCKET NO. 50-270

AND

TO LICENSE AMENDMENT NO.193

FACILITY OPERATING LICENSE NO. DPR-55

DOCKET NO. 50-287

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change.

Remove Page	Insert Page
3.7-4	3.7-4

2. The conditions of Table 3.7-1 for degraded operation are satisfied for the affected functional units.

In any event, if the reactor is subcritical, the inoperable circuit(s) or channel(s) shall be restored to operability and the conditions of Table 3.7-1 for normal operation shall be satisfied for all functional units before the reactor is returned to criticality.

(c) One 4160 volt main feeder bus may be inoperable for 24 hours.

(d) One complete single string (i.e., 4160 volt switchgear (TC, TD, or TE), 600 volt load center, (X8, X9, or X10), 600-208 volt MCC (XS1, XS2, or XS3), and their loads) of each unit's 4160 volt Engineered Safety Features Power System may be inoperable for 24 hours.

(e) One or more of the following DC distribution components may be inoperable for periods not exceeding 24 hours[1] (except as noted in 3.7.2(g) below):

1. One complete single string or single component (i.e., 125VDC battery, charger, distribution center, and panelboards) of the 125VDC 230KV Switching Station Power System.

2. One complete single string or single component (i.e., 125VDC battery, charger, and distribution center) of the Keowee 125VDC Power System may be inoperable provided the remaining string of the Keowee 125 VDC Power System is operable and electrically connected to an operable Keowee hydro unit.

3. One complete single string or single component (i.e., 125VDC battery, charger, distribution center, and associated isolating and transfer diodes) of any units 125VDC Instrumentation and Control Power System. Only one battery more than the number allowed to be inoperable per 3.7.1 (f) for the Station may be removed from service under this paragraph.

4. One 125 VDC instrumentation and control panelboard and its associated loads, per unit, provided that no additional AC buses are made inoperable beyond the provisions of 3.7.2(a), (c), and (d), and provided that the conditions of Table 3.7-1 for normal operation are satisfied for all functional units of the EPSL before the 125 VDC instrumentation and control panelboard becomes inoperable. Additionally, the provisions of 3.7.2.(h) must be observed for the 120 VAC vital instrumentation power panelboard which is powered by the affected 125 VDC panelboard.

(f) For periods not to exceed 24 hours each unit's 125 VDC system may be separated from its backup unit via the isolating and transfer diodes.

(g) One battery each, from one or more of the following 125VDC systems may be simultaneously inoperable for 72 hours in order to perform an equalizer charge after the surveillance requirements of Specification 4.6.10 or performance test:

[1]One 230kV switchyard battery and associated distribution center may be inoperable for 7 days for its respective battery replacement modification.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 196 TO FACILITY OPERATING LICENSE DPR-38

AMENDMENT NO. 196 TO FACILITY OPERATING LICENSE DPR-47

AND AMENDMENT NO. 193 TO FACILITY OPERATING LICENSE DPR-55

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

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

1.0 INTRODUCTION

By letter dated May 20, 1992, the Duke Power Company (the licensee or DPC) submitted a request for changes to the Oconee Nuclear Station, Units 1, 2, and 3 Technical Specifications (TS). The requested changes would allow a one-time extension of the allowable outage time from 24 hours to 7 days per battery for each 125 volt dc (VDC) battery and associated distribution center servicing the 230 kV switchyard. The extension would allow battery replacement without shutdown of the Oconee nuclear units.

The 230 kV switchyard (SY) 125 VDC batteries at Oconee are approaching their end of life and need to be replaced. Currently, TS 3.7.2(e) allows 24 hours for inoperability of a complete single string (train) or single component of the 125 VDC 230 kV switching station power system; 72 hours are permitted if the inoperability is for an equalizer charge following a battery service test or performance test. The licensee plans to replace the existing 59 cell batteries with greater capacity 60 cell batteries. Replacement of the existing batteries, equalizing charge of the new batteries following installation, and associated modifications will require approximately 7 days per battery.

2.0 EVALUATION

Oconee has a unique onsite ac electric power system. Instead of using emergency diesel generators as onsite ac power sources, Oconee uses two Keowee hydro units as the two onsite sources backed by a circuit from Lee Steam Station via the 100 kV transmission network as an additional onsite source.

At Oconee, Units 1 and 2 generate electric power at 19 kV and step up to transmission voltage of 230 kV. Unit 3 generates electric power at 19 kV and steps up to transmission voltage of 525 kV. A 230/525 kV autotransformer connects the 525 kV switching station to the 230 kV switching station. The Keowee hydro station contains two units rated at 87,500 kVA each, which generate at 13.8 kV. Upon loss of power from the Oconee generating unit and

the 230 kV switchyard, both of the Keowee hydro units can provide emergency power to any of the Oconee units through either the overhead 230 kV circuit switching station to the unit's respective startup transformer or the underground feeder and transformer CT4. Whenever the underground circuit from Keowee is unavailable, a circuit from Lee Steam Station can be connected to the Standby buses through transformer CT5 and serve as an emergency power source.

Two separate 230 kV switchyard 125 VDC batteries (SY-1; SY-2) are provided in the SY Relay House, each with an associated battery charger. A spare charger, which can be connected to either switchyard battery, is also provided. A bus tie with normally open breakers is provided between the distribution centers to backup a battery when it is removed for servicing. The capacity of a single SY battery is sufficient to carry the loads of both distribution centers. The two distribution centers are redundant, each providing power to all components necessary for performing the safety functions of the 230 kV SY dc system. The redundant panel boards supply power to separate channels of the degraded grid protection system (DGPS) circuits, separate channels of other protective relaying circuits, and separate feeds for each 230 kV power circuit breakers closing and tripping coils. The staff's review indicates that the dc systems are designed to have sufficient independence, redundancy, and testability to perform their safety functions.

In addition, for each nuclear unit, a 125 VDC system provides power for control and instrumentation for normal operation and orderly shutdown, and a separate 125/250 volt dc system is provided to supply large power loads for each unit. For each Keowee hydro unit, separate and independent dc power systems are provided to assure a source of reliable continuous power for normal and emergency operation. These dc systems will not be affected by this change.

The licensee states that the proposed modification to replace the SY batteries will include: replacement of the existing 59 cell batteries SY-1 and SY-2 with 60 cell batteries, replacement of the railings on one row of each battery rack to accommodate the additional 60th cell, replacement of several circuit breakers, and an equalizer charge of the new batteries following installation. Although TS 3.7.2(e) does not specify compensatory measures in the event of 230 kV switchyard dc degradation, the licensee will take the following actions in support of this modification:

1. TS 4.6.9.a requires a weekly verification of pilot cell electrolyte level, specific gravity, and float voltage, as well as overall battery float voltage. Prior to removing a battery from service, the remaining battery will be tested in accordance with TS 4.6.9.a. In addition, while a battery is inoperable, the remaining battery will be tested daily in accordance with TS 4.6.9.a.

2. In order to maintain both DGPS's actuation logic channels available (although vulnerable to single failure of the battery) and to provide redundant power feeds to other supported equipment, the distribution centers will be cross tied when practical during implementation of the

modification. Further, when one channel of the DGPS is de-energized, switchyard voltage will be monitored by the system dispatcher. In the event of an actual degraded grid condition, the provisions of TS 3.7.5 (all 230 kV transmissions lines lost) would apply and actions would be taken to improve the grid situation.

3. Both the overhead emergency power path and the underground emergency power path from Keowee will be maintained operable during implementation of the modification.

4. The modification will be implemented in accordance with approved procedures.

We have reviewed the licensee's submittal and found that the emergency power is not significantly affected by a one-time extension of allowable outage time for one train of the 230 kV switchyard dc system. The remaining dc train is adequate to assure operability of the Keowee overhead emergency path, and the Keowee underground emergency path will be maintained operable during the battery outage. In addition, the additional source from Lee Steam Station via the 100 kV transmission network can still be connected to the standby buses and serve as an emergency power source. Also, adequate administrative measures will be in place to help prevent loss of the switchyard during implementation of this modification.

To replace each of the two SY batteries one at a time, the licensee has proposed a one-time extension of the LCO for the inoperability of a complete single string or single component of the 125 VDC 230 kV switchyard from 24 hours to 7 days. The staff has reviewed the licensee's submittal and concluded that adequate basis for the extension of the LCO has been provided. Based on the above evaluation, the staff has determined that Oconee can be operated safely without undue risk to the health and safety of the public and there is reasonable assurance that adequate ac and dc power sources will be available to mitigate credible events that might occur during the period of 7 days and, therefore, we conclude that this one-time extension is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the South Carolina State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an Environmental Assessment and Finding of No Significant Impact was published in the Federal Register on August 26, 1992 (57 FR 38700).

Accordingly, based on the Environmental Assessment, the Commission has determined that issuance of the amendments will not have a significant effect on the quality of the human environment.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: L. A. Wiens, PDII-3/NRR
N. Trehan, SELB

Date: August 26, 1992