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

June 6, 1989

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

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 174, 174, AND 171 TO FACILITY OPERATING LICENSES DPR-38, DPR-47, and DPR-55 - OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3 (TACS 54402, 54403, 54404, 54551, 54552, 54553, 64664, 64665, 64666, 68080, 68081 AND 68082)

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 174,174, and 171 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3. These amendments consist of changes to the Station's Technical Specifications (TS) in response to your applications dated October 8, 1984, January 6, 1988 and March 15, 1988. These applications were supplemented or revised by your letters of August 27, 1985; January 30, June 27, August 13 and September 19, 1986; January 18, May 13, September 16 and December 29, 1988; and May 17, 1989.

The TS added by these amendments are in response to NRC Generic Letter (GL) 83-37 providing guidance on the scope of TS for NUREG-0737, "Clarification of TMI Action Plan Requirements." Specifically, TS are added for the following TMI action items: (1) Containment High-Range Radiation Monitor (II.F.1.3), (2) Containment Pressure Monitor (II.F.1.4), (3) Containment Water Level Monitor (II.F.1.5), (4) Containment Hydrogen Monitor (II.F.1.6), (5) Instrumentation for Detection of Inadequate Core Cooling (II.F.2) and (6) Control Room Habitability Requirements (III.D.3.4).

The amendments do not add TS for certain items addressed by GL 83-37. TMI action items II.B.3 "Post Accident Sampling," II.E.1.1 "Long-Term Auxiliary Feedwater System Evaluation," and II.F.1.2 "Sampling and Analysis of Plant Effluents" are already covered by existing Oconee TS. Items II.F.1.2 and II.B.3 were approved in Amendments 146, 146, and 143 to Facility Operating Licenses DPR-38, DPR-47, and DPR-55, respectively. Items II.B.1 "Reactor Coolant System Vents" and II.F.1.1 "Noble Gas Effluent Monitors" are not added because the NRC has determined under its Technical Specifications Improvement Program that these two items are more appropriately relocated to licensee controlled documents other than TS. Accordingly, we acknowledge your commitment of May 17, 1989 to incorporate these two items into the FSAR and to submit appropriately revised FSAR pages to the NRC by October 1, 1989. Enclosed is a copy of a "Notice of Withdrawal" related to these two items which has been forwarded to the Office of the Federal Register for publication.

DF01
1/1

CP-1
cc

The amendments accept your proposed TS changes regarding Control Room Habitability Requirements. In the accompanying SER we note that aspects of the system review have not been completed, but that such continuing review does not preclude the need for the proposed limiting conditions for operation and additional surveillance testing of the existing system. One aspect of our continuing review regards location of the outside air intake structure. You stated that further analysis of control room operator exposure is deferred indefinitely pending NRC acceptance of a new iodine source term. In this respect, it is our opinion that staff acceptance of an alternate iodine source term is unlikely. We do have under consideration more realistic atmospheric transport models. A second aspect of our continuing review regards temperature of the control room envelope. Should you find upon completion of your evaluations that changes to these TS are appropriate, we would anticipate your prompt submittal to this end.

We disagree with your discussion on the Reactor Vessel Level Indication System (RVLIS) and would reiterate our position that RVLIS is a necessary instrument. The addition of a reactor coolant inventory system will improve the reliability of plant operators to diagnose the approach of inadequate core cooling (ICC) and to assess the adequacy of responses taken to restore core cooling. The benefit will be preventive in nature in that the instrumentation will assist the operator in avoidance of a degraded or melted core when voids in the reactor coolant system and saturation conditions result from overcooling, steam generator tube rupture, and small break loss of coolant events.

A copy of our Safety Evaluation is also enclosed. Notice of issuance of the enclosed amendments will be included in the Commission's bi-weekly 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.174 to DPR-38
2. Amendment No.174 to DPR-47
3. Amendment No.171 to DPR-55
4. Safety Evaluation
5. Notice of Withdrawal

cc w/enclosures:
See next page

The amendments accept your proposed TS changes regarding Control Room Habitability Requirements. In the accompanying SER we note that aspects of the system review have not been completed, but that such continuing review does not preclude the need for the proposed limiting conditions for operation and additional surveillance testing of the existing system. One aspect of our continuing review regards location of the outside air intake structure. You stated that further analysis of control room operator exposure is deferred indefinitely pending NRC acceptance of a new iodine source term. In this respect, it is our opinion that staff acceptance of an alternate iodine source term is unlikely. We do have under consideration more realistic atmospheric transport models. A second aspect of our continuing review regards temperature of the control room envelope. Should you find upon completion of your evaluations that changes to these TS are appropriate, we would anticipate your prompt submittal to this end.

We disagree with your discussion on the Reactor Vessel Level Indication System (RVLIS) and would reiterate our position that RVLIS is a necessary instrument. The addition of a reactor coolant inventory system will improve the reliability of plant operators to diagnose the approach of inadequate core cooling (ICC) and to assess the adequacy of responses taken to restore core cooling. The benefit will be preventive in nature in that the instrumentation will assist the operator in avoidance of a degraded or melted core when voids in the reactor coolant system and saturation conditions result from overcooling, steam generator tube rupture, and small break loss of coolant events.

A copy of our Safety Evaluation is also enclosed. Notice of issuance of the enclosed amendments will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/S/

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

Enclosures:
1. Amendment No.174 to DPR-38
2. Amendment No.174 to DPR-47
3. Amendment No.171 to DPR-55
4. Safety Evaluation
5. Notice of Withdrawal

cc w/enclosures:
See next page

[OCONEE AMEND 54402/3/4]

LA:PDII-3	PM:PDII-3	D:PDII-3
MRood	LWiens:bd	for DMatthews
05/26/89	05/26/89	~~05/ /88~~ 6/2/89

cc:
Mr. A. V. Carr, Esq.
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esq.
Bishop, Cook, Purcell & Reynolds
1400 L Street, N.W.
Washington, D.C. 20005

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

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 34623-1693

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, N.W., 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

Honorable James M. Phinney
County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. Paul Guill
Duke Power Company
Post Office Box 33189
422 South Church Street
Charlotte, North Carolina 28242

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
N. C. Department of Justice
P.O. Box 629
Raleigh, North Carolina 27602

DATED: June 6, 1989

AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE DPR-38 - Oconee Nuclear Station, Unit 1
AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE DPR-47 - Oconee Nuclear Station, Unit 2
AMENDMENT NO. 171 TO FACILITY OPERATING LICENSE DPR-55 - Oconee Nuclear Station, Unit 3

DISTRIBUTION:
Docket File
NRC PDR
Local PDR
PDII-3 R/F
Oconee R/F
S. Varga 14-E-4
G. Lainas 14-H-3
D. Matthews
M. Rood
L. Wiens
OGC
B. Grimes 9-A-2
E. Jordan MNBB-3302
W. Jones P-130A
T. Meek (12) P1-137
ACRS (10) P-135
GPA/PA 17-F-2
ARM/LFMB AR-2015
J. Calvo 11-F-23
D. Hagan MNBB-3302
S. Newberry 7-E-12
C. McCracken, 8-H-7
W. Hodges, 8-E-23
Oconee Plant File

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. 174
License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications 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 October 8, 1984, January 6, 1988 and March 15, 1988, as supplemented or revised August 27, 1985, January 30, June 27, August 13, and September 19, 1986; January 18, May 13, September 16 and December 29, 1988; and May 17, 1989, comply 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 set forth in 10 CFR Chapter I;

   D. The issuance of this license 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 attachments to this license amendment, and Paragraph 3.B. of Facility Operating License No. DPR-38 is hereby amended to read as follows:

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 174, 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

Lawrence P. Crocker

for 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: June 6, 1989

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 174, 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

Original Signed By:
David B. Matthews

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: June 6, 1989

OFFICIAL RECORD COPY

LA:PDII-3	PM:PDII-3	~~NRR~~:SPLB	~~NRR~~:SRXB	NRR:SICB
MRood	LWiens:bd	~~CMcCracken~~	~~for~~ WHodges	SNewberry
05/25/88	05/~~26~~/88	05/31/88	05/~~26~~/88	05/26/89
OGC	PDII-3			
05/31/89	DMatthews			
	~~05/ /89~~ 06/02/89			

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. 174
License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications 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 October 8, 1984, January 6, 1988 and March 15, 1988, as supplemented or revised August 27, 1985, January 30, June 27, August 13, and September 19, 1986; January 18, May 13, September 16 and December 29, 1988; and May 17, 1989, comply 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 set forth in 10 CFR Chapter I;

   D. The issuance of this license 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 attachments to this license amendment, and Paragraph 3.B. of Facility Operating License No. DPR-47 is hereby amended to read as follows:

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 174, 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

Lawrence P. Crocker for

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: June 6, 1989

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 174 , 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

Original Signed By:
David B. Matthews

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: June 6, 1989

OFFICIAL RECORD COPY

LA:PDII-3	PM:PDII-3	NRR:SPLB	NRR:SRXB	NRR:SICB
MRbod	LWiens:bd	CMcCracken	for WHodges	SNewberry
05/25/88	05/26/88	05/31/88	05/24/88	05/26/89

OGC
05/31/89

PDII-3
DMatthews
~~05/ /89~~
06/02/89

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. 171
License No. DPR-55

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications 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 October 8, 1984, January 6, 1988 and March 15, 1988, as supplemented or revised August 27, 1985, January 30, June 27, August 13, and September 19, 1986; January 18, May 13, September 16 and December 29, 1988; and May 17, 1989, comply 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 set forth in 10 CFR Chapter I;

   D. The issuance of this license 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 attachments to this license amendment, and Paragraph 3.B. of Facility Operating License No. DPR-55 is hereby amended to read as follows:

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.171 , 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

Lawrence P. Crocker for

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: June 6, 1989

3.B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 171, 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

Original Signed By;
David B. Matthews

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: June 6, 1989

OFFICIAL RECORD COPY

LA:PDII-3	PM:PDII-3	NRR:SPLB	NRR:SRXB	NRR:SICB
MRood	LWiens:bd	CMcCracken	WHodges	SNewberry
05/25/88	05/26/88	05/31/88	05/26/88	05/26/89
OGC	PDII-3			
MYoung	DMatthews			
05/31/89	05/ /89 06/02/89			

ATTACHMENT TO LICENSE AMENDMENT NO. 174

FACILITY OPERATING LICENSE NO. DPR-38

DOCKET NO. 50-269

AND

TO LICENSE AMENDMENT NO. 174

FACILITY OPERATING LICENSE NO. DPR-47

DOCKET NO. 50-270

AND

TO LICENSE AMENDMENT NO. 171

FACILITY OPERATING LICENSE NO. DPR-55

DOCKET NO. 50-287

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

Remove Page	Insert Page
iii	iii
iv	iv
v	v
vi	vi
3.1-24	
3.5-44	3.5-44
3.5-45	3.5-45
3.5-46	3.5-46
3.15-1	3.15-1
3.15-2	3.15-2
4.1-8	4.1-8
4.1-8a	4.1-8a
4.1-9	4.1-9
4.12-1	4.12-1

LIST OF TABLES

3.5.6 Accident Monitoring Instrumentation

Applicability

Applies to accident monitoring instrumentation.

Objective

To ensure that sufficient information is available on selected plant parameters to monitor and assess such parameters following an accident.

Specifications

3.5.6.1 The accident monitoring instrumentation shown in Table 3.5.6-1 shall be operable per applicability indicated in the Table. The provisions of Technical Specification 3.0 do not apply.

3.5.6.2 In the event that the number of accident monitoring instrumentation channels falls below the limit given in Table 3.5.6-1 Column A; operation shall be limited as specified in Column B.

Bases

The operability of the accident monitoring instrumentation for accident conditions as appropriate ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident.

RCS subcooled margin is directly indicated in the control room. Core subcooled margin is indicated on both ICC plasma displays, the OAC video, and a digital control board meter. Loop A subcooled margin is indicated on one ICC plasma display, the OAC video, and a digital control board meter. Loop B subcooled margin is indicated on the other ICC plasma display, the OAC video, and a digital control board meter. The OAC video and the digital control board meters are redundant displays of the same signal.

The operability requirements of the Reactor Coolant System subcooling margin monitors ensures that sufficient information is available to the operators to provide prompt recognition of saturated conditions in the primary coolant system and advanced warning of the approach to inadequate core cooling. Guidance for these requirements was provided by the NRC letter of July 2, 1980, and derived from the implementation of the TMI-2 lessons learned program.

Temperature indications from all 24 qualified core exit thermcouples can be displayed on the OAC. 12 qualified core exit thermcouples per train will input to each train of process electronics and can be displayed on the respective ICC plasma display.

Table 3.5.6-1
ACCIDENT MONITORING INSTRUMENTATION

	Instrument	(A) Required Operable Channels	(B) Action	(C) Applicability
1.	Containment Pressure Monitor (PT-230, -231)	2 of 2	1	Above hot shutdown
2.	Containment Water Level Monitor Wide Range (LT-90, -91)	2 of 2	2	Above hot shutdown
3.	Containment High-Range Radiation Monitor (RIA-57, -58)	2 of 2	2	Above hot shutdown
4.	Containment Hydrogen Monitor (MT-80, -81)	2 of 2	2	Above hot shutdown
5.	Wide Range Hot Leg Level (RC-LT0123, RC-LT0124)	2 of 2	3	Above hot shutdown
6.	Reactor Vessel Head Level (RC-LT0125, RC-LT0126)	2 of 2	3	Above hot shutdown
7.	Qualified Core Exit Thermocouple Trains	2 of 2 (a)	2	Above hot shutdown
8.	Subcooling Monitors	2 (b)	4	When RCS temperature is >300°F

Table 3.5.6-1 (CONTINUED)
ACCIDENT MONITORING INSTRUMENTATION

ACTIONS

Action 1: If one channel is inoperable, the channel shall be restored to operable status within 7 days, or the unit shall be in hot shutdown within the next 12 hours.

If two channels are inoperable, at least one channel shall be restored to operable status within 48 hours, or the unit shall be in hot shutdown within the next 12 hours.

Action 2: If one channel is inoperable, the channel shall be restored to operable status within 30 days, or the unit shall be in hot shutdown within the next 12 hours.

If two channels are inoperable, at least one channel shall be restored to operable status within 48 hours, or the unit shall be in hot shutdown within the next 12 hours.

Action 3: If one channel is inoperable, the channel shall be restored to operable status within 7 days, or a report shall be submitted to the Commission within the next 30 days outlining the cause of the inoperability and the plans and schedule for restoring the channel to operable status.

If two channels are inoperable, at least one channel shall be restored to operable status within 7 days, or the unit shall be in hot shutdown within the next 12 hours.

Action 4: If one of the required channels is inoperable, at least one channel shall be restored to operable status within 30 days or the unit shall be in hot shutdown within the next 12 hours and below 300°F within the next 24 hours.

If two of the required channels are inoperable, at least one channel shall be restored to operable status within 48 hours or the unit shall be in hot shutdown within the next 12 hours and below 300°F within the next 24 hours.

NOTES

(a) 5 of 12 qualified core exit thermocouples must be operable per train for a train to be considered operable.

(b) Operable subcooling margin monitors must consist of:

1) One direct indication for 1 of 2 RCS hot legs and one direct indication for the core; or

2) One direct indication for each RCS hot leg.

3.15 Control Room Pressurization and Filtering System and Penetration Room Ventilation System

Applicability

Applies to the Unit 1 and 2, and Unit 3 control room pressurization and filtering systems and the penetration room ventilation system.

Objective

To define the conditions necessary to assure operability of the control room pressurization and filtering system and the immediate availability of the penetration room ventilation systems.

Specification

3.15.1 Penetration Room Ventilation Systems

a. Two trains of the penetration room ventilation systems shall be operable at all times when containment integrity is required or the reactor shall be shutdown within 12 hours with the following exception:

(1) If one of two trains of a penetration room ventilation system is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days provided that all active components of the other train of the penetration room ventilation system shall be demonstrated to be operable within 24 hours and daily thereafter.

3.15.2 Control Room Pressurization and Filtering Systems

a. With the reactor above hot shutdown conditions both outside air booster fans shall be operable.

(1) If one outside air booster fan is inoperable, restore the inoperable fan to operable status within 72 hours, or the unit shall be in hot shutdown within the next 12 hours.

(2) If both outside air booster fans are inoperable, restore at least one inoperable fan to operable status within 24 hours or the unit shall be in hot shutdown within the next 12 hours.

b. With the reactor above hot shutdown conditions and both outside air booster fans operable, the control room pressurization and filtering systems shall be capable of maintaining a positive pressure within the control room.

(1) If the above requirements of Specification 3.15.2.b are not met within 30 days, the unit shall be in hot shutdown within the next 12 hours.

c. With the reactor above hot shutdown conditions, both filter trains shall be operable.

(1) If one filter train is inoperable, restore the inoperable filter train to operable status within 72 hours, or the unit shall be in hot shutdown within the next 12 hours.

(2) If both filter trains are inoperable, restore one inoperable filter train to operable status within 24 hours or the unit shall be in hot shutdown within the next 12 hours.

d. The provisions of Specification 3.0 do not apply.

Bases

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.

The control room pressurization and filtering system is comprised of two separate outside air booster fans with prefilter/HEPA/carbon filter trains, two redundant control room air handling unit fans, and associated ductwork. The system is designed to protect the control room operators from the effects of accidental release of radioactive effluents or toxic gases in the Turbine or Auxiliary Building.

Protection is provided by pressurizing the control room with filtered outside air to prevent inleakage of radioactive effluents or toxic gases from the Turbine or Auxiliary Building only. Specification 3.15.2.b applies to all instances where the reactor is above hot shutdown and the system is judged incapable of maintaining the control room at a positive pressure or, if during refueling frequency testing per Specification 4.12.1.b the system is demonstrated to be incapable of maintaining the control room at a positive pressure.

Table 4.1-1 (CONTINUED)

Channel Description	Check	Test	Calibrate	Remarks
49. Emergency Feedwater Flow Indicators	MO	NA	RF	
50. PORV and Safety Valve Position Indicators	MO	NA	RF	
51. RPS Anticipatory Reactor Trip System Loss of Turbine Emergency Trip System Pressure Switches	NA	MO	RF	
52. RPS Anticipatory Reactor Trip System Loss of Main Feedwater				
a) Control Oil Pressure Switches	NA	MO	RF	
b) Discharge Pressure Switches	NA	MO	RF	
53. Emergency Feedwater Initiation Circuits				
a) Control Oil Pressure Switches	NA	MO	RF	
b) Discharge Pressure Switches	NA	MO	RF	
54. Containment High Range Radiation Monitor (RIA-57, 58)	NA	MO	RF	TMI Item II.F.1.3

Amendment No. 174 (Unit 1)
Amendment No. 174 (Unit 2)
Amendment No. 171 (Unit 3)

Table 4.1-1 (CONTINUED)

Channel Description	Check	Test	Calibrate	Remarks
55. Containment Pressure Monitor (PT-230, 231)	MO	NA	AN	TMI Item II.F.1.4
56. Containment Water Level Monitor-Wide Range (LT-90, -91)	MO	NA	RF	TMI Item II.F.1.5
57. Containment Hydrogen Monitor (MT-80,-81)	NA	MO	AN	TMI Item II.F.1.6
58. Wide Range Hot Leg Level	NA	RF	RF	
59. Reactor Vessel Head Level	NA	RF	RF	
60. Core Exit Thermocouples	MO	NA	RF	
61. Subcooling Monitors	MO	RF	RF	

ES - Each Shift
DA - Daily
WE - Weekly
MO - Monthly
QU - Quarterly
AN - Annually
PS - Prior to startup, if not performed previous week
NA - Not Applicable
RF - Refueling Outage

Amendment No. 174 (Unit 1)
Amendment No. 174 (Unit 2)
Amendment No. 171 (Unit 3)

Table 4.1-2
MINIMUM EQUIPMENT TEST FREQUENCY

	Item	Test	Frequency
1.	Control Rod Movement (1)	Movement of Each Rod	Monthly
2.	Pressurizer Safety Valves	Setpoint	Each Refueling (4)
3.	Main Steam Safety Valves	Setpoint	Each Refueling (4)
4.	Refueling System Interlocks	Functional	Prior to Refueling
5.	Main Steam Stop Valves (1)	Movement of Each Stop Valve	Monthly
6.	Reactor Coolant System Leakage (2)	Evaluate	Daily
7.	Condenser Cooling Water System Gravity Flow Test	Functional	Each Refueling
8.	High Pressure Service Water Pumps and Power Supplies	Functional	Monthly
9.	Spent Fuel Cooling System	Functional	Prior to Refueling
10.	High Pressure and Low Pressure Injection System (3)	Vent Pump Casings	Monthly and Prior to Testing
11.	Emergency Feedwater Pump Automatic Start and Automatic Valve Actuation Feature	Functional	Each Refueling

(1) Applicable only when the reactor is critical.

(2) Applicable only when the reactor coolant is above 200°F and at a steady-state temperature and pressure.

(3) Operating pumps excluded.

(4) Number of safety valves to be tested each refueling shall be in accordance with ASME Codes Section XI, Article IWV-3511, such that each valve is tested at least once every 5 years.

4.12 CONTROL ROOM PRESSURIZATION AND FILTERING SYSTEM

Applicability

Applies to control room pressurization and filtering system components

Objective

To verify that these systems and components will be able to perform their design functions.

Specification

4.12.1 Operating Tests

a. Control room outside air booster fan system tests shall be performed quarterly. These tests shall consist of an external visual inspection, a flow measurement for each unit and pressure drop measurements across each filter bank. Pressure drop across pre-filter shall not exceed 1 inch H_2O and pressure drop across HEPA shall not exceed 2 inches H_2O. Fan motors shall be operated continuously for at least one hour, and all louvers shall be proven operable.

b. On a refueling frequency, verify the system maintains the control room at a positive pressure with both outside air booster fans on during system operation.

4.12.2 Filter Tests

On a refueling frequency, for the Unit 1 and 2 and the Unit 3 control room an in-place leakage test using DOP on HEPA units and Freon-112 (or equivalent) on carbon units shall be performed at design flow on each filter train. Removal of 99.5 percent DOP by each entire HEPA filter unit and removal of 99.0 percent Freon-112 (or equivalent) by each entire carbon adsorber unit shall constitute acceptance performance. These tests must also be performed after any maintenance which may affect the structural integrity of either the filtration system units or of the housing.

Bases

The purpose of the control room pressurization filtering system is to protect the control room operators from the effects of accidental release of radioactive effluents or toxic gases in the Turbine Building or Auxiliary Building only. The system is designed with two 50 percent capacity filter trains each of which consists of a prefilter, high efficiency particulate filters, carbon filters, booster fans, air handling unit fans, and associated ductwork to pressurize the control room with outside air.

Since these systems are not normally operated, a periodic test is required to insure their operability when needed. Quarterly testing of this system will show that the system is available.

Refueling frequency testing of the installed carbon adsorber stage and absolute filters will verify the leak integrity of the cleanup system. Refueling frequency testing will also verify the ability of the system to maintain the control room at a positive pressure to minimize infiltration of hazardous effluents.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE DPR-38

AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE DPR-47

AMENDMENT NO. 171 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

In November 1989 the staff issued NUREG-0737, "Clarification of TMI Action Plan Requirements," which included all TMI Action Plan items approved by the Commission for implementation at nuclear power reactors. NUREG-0737 identifies eleven items for which Technical Specifications (TS) were scheduled for implementation after December 31, 1981. The staff provided guidance on the scope of Technical Specifications for these eleven items in Generic Letter 83-37 which was issued to all Pressurized Water Reactor licensees on November 1, 1983. In this Generic Letter the staff requested licensees to:

1. review their facility's Technical Specifications to determine if they were consistent with the guidance provided in the Generic Letter, and

2. submit an application for a license amendment where deviations or absence of Technical Specifications were found.

By letters dated October 8, 1984, and January 6 and March 15, 1988, Duke Power Company (the licensee) responded to Generic Letter 83-37 by submitting applications for TS changes for Oconee Nuclear Station, Units 1, 2 and 3. These applications were supplemented or revised by licensee's letters of August 27, 1985; January 30, June 27, August 13 and September 19, 1986; January 18, May 13, September 16 and December 29, 1988; and May 17, 1989.

The proposed action was noticed on May 21, 1985, April 20, 1988 and June 3, 1988. The submittals after relevant notices did not change the nature of the action proposed or affect the initial no significant hazard determination.

2.0 EVALUATION

The licensee's request for TS changes for six of the eleven TMI Action Plan items addressed by GL 83-37 are the subject of this evaluation. The other five items are not included in these amendments because three (items II.B.3, II.E.1.1, and II.F.1.2) are already addressed by the Oconee TS, and two (Reactor Coolant System Vents, item II.B.1; and Noble Gas Effluent Monitors, item II.F.1.1) have been determined through the Technical Specification Improvement Program to be more appropriately located in licensee controlled documents other than TS.

(1) Containment High Range Radiation Monitors (II.F.1.3)

Each Oconee unit has two containment high range radiation monitors, RIA-57 and RIA-58, to monitor significant post accident radiation levels within containment. The licensee has proposed limiting conditions for operation (TS 3.5.6 and TS Table 3.5.6-1 item 3) and surveillance requirements (Table 4.1-1 item 54) which we find to meet the intent of the guidance of GL 83-37. Accordingly, these changes are acceptable.

(2) Containment Pressure Monitor (II.F.1.4)

Each Oconee unit has two containment pressure monitors, PT-230 and PT-231, to continuously indicate in the control room for post-accident monitoring purposes. The licensee has proposed limiting conditions for operation (TS 3.5.6 and TS Table 3.5.6-1 item 1) and surveillance requirements (TS Table 4.1-1 item 55) which we find to meet the intent of the guidance of GL 83-37. Accordingly, these changes are acceptable.

(3) Containment Water Level Monitor (II.F.1.5)

Each Oconee unit includes two wide range containment water level monitors, LT-90 and LT-91, to provide continuous indication in the control room of containment water level after an accident. The licensee has proposed limiting conditions for operation (TS 3.5.6 and TS Table 3.5.6-1 item 2) and surveillance requirements (TS Table 4.1-1 item 56) which we find to meet the intent of the guidance of GL 83-37. Accordingly, these changes are acceptable.

(4) Containment Hydrogen Monitor (II.F.1.6)

Each Oconee unit is provided with two independent containment hydrogen monitors, MT-80 and MT-81, to indicate the concentration of hydrogen inside containment after an accident. The licensee has proposed limiting conditions for operation (TS 3.5.6 and TS Table 3.5.6-1 item 4) and surveillance requirements (TS Table 4.1-1 item 57) which we find to meet the intent of the guidance of GL 83-37. Accordingly, these changes are acceptable.

(5) Instrumentation for Detection of Inadequate Core Cooling (II.F.2)

Each Oconee unit is provided with instrumentation for detection of inadequate core cooling (ICC). This includes wide range hot leg level (RC-LTO 123 and RC-LTO 124), reactor vessel head level (RC-LTO 125 and RC-LTO 126), core exit thermocouple trains, and subcooling monitors. The Oconee TS currently address one item of TMI Action Plan item II.F.2, namely the subcooling margin monitor which is addressed by TS 3.1.12. The licensee proposes to delete existing TS 3.1.12 and replace it by a TS which is more consistent with GL 83-37. The new TS includes limiting conditions for operation (TS 3.5.6 and TS Table 3.5.6-1 items 5, 6, 7 and 8) and surveillance requirements (TS Table 4.1-1 items 58, 59, 60 and 61) for the total ICC system. We find the new TS to meet the intent of the guidance of GL 83-37. Accordingly, these changes are acceptable.

(6) Control Room Habitability Requirements (III.D.3.4)

By letter dated January 6, 1988, the licensee proposed revisions to the TS based on its January 30, 1987 supplemental response to Generic Letter 83-37. The revised proposal was submitted by letter dated May 17, 1989. The proposed TS 3.15 provides limiting conditions for operation for the control room pressurization and filtering system. The proposed TS 4.12 provides for additional testing of the control room pressurization and filtering system as well as clarifications to existing TS requirements.

In support of this request, the licensee provided the following information:

> "The Oconee Nuclear Station ventilation system was designed prior to the establishment of General Design Criteria (GDC) 19 of Appendix A of 10 CFR Part 50. The control room pressurization and filtering system has been upgraded to meet the intent of NUREG-0737, Item III.D.3.4 (Control Room Habitability) by providing additional protection of the control room operators from the effects of the accidental release of radioactive effluents and toxic gases in the turbine building and the auxiliary building only.
>
> The system would only be activated by manual operator action in the event of such a release. Each release will need to be evaluated on an individual basis to determine whether operation of the system would increase or decrease operator exposure.
>
> The control rooms are located in the auxiliary building. Oconee 1 and 2 have a shared control room while Unit 3 has a separate control room. The control room area ventilation and air conditioning systems are designed to maintain the environment in the control room, control room zone, cable room and electrical equipment rooms within acceptable limits for the operation of unit controls as necessary for equipment and operating personnel. Each control room is primarily served by two 100 percent capacity air handling units, each consisting of a roughing filter, chilled water coils, and a centrifugal fan. The control room pressurization and filtering system is comprised of two separate outside air booster fans with prefilter/HEPA/carbon adsorber filter trains, two redundant control room air handling unit fans, associated ductwork, and radiation monitor RIA-39.
>
> The main objective of the system modifications has been to pressurize the control rooms to a slightly positive differential pressure as compared to areas surrounding the control room envelope. The criterion of a "measurable positive pressure" was identified by the NRC as an acceptable deviation from Regulatory Guide (RG) 1.95 criteria within a safety evaluation on control room habitability, dated November 24, 1986. In addition to the modifications accomplished to date, the licensee proposed, by letter dated August 14, 1987, the relocation of the control room outside air intakes to resolve NRC concerns regarding calculated operator doses. The NRC has not completed its evaluation of this proposed relocation of the intakes.

Theoretically, in-plant release of chemical vapors or radioactive effluents call for use of the control room pressurization and filtering system to prevent in-leakage to the control room. However, no design basis accident is identified that could result in control room contaminant concentrations above NRC criteria (i.e., chlorine, hydrazine, gas decay tanks, etc.). The commitment to pressurize the control room following a loss of coolant accident is based on potential radioiodine sources from containment leakage into the penetration room and into the control room bypassing filtration. However, consideration of thyroid doses from radioiodine has been deferred until resolution of the source term reevaluation. This is in accordance with the NRC safety evaluation dated November 24, 1986.

The licensee has determined that inclusion of limiting conditions for operation to address chlorine detection is unwarranted, since there are no chlorine sources that could cause hazardous concentrations or concentrations in excess of NRC criteria in the control room. The NRC determined in the November 24, 1986 safety evaluation that adequate protection for control room operators is provided against potential toxic gas release accidents."

The staff has reviewed the licensee's submittals and concurs in the licensee's evaluation and conclusions. Additionally, the staff notes that while review of certain aspects of the system design have not been completed, this does not preclude the need for limiting conditions for operation and additional testing of the existing system in accordance with GL 83-37. The staff finds that the proposed changes to the Oconee TS are in accordance with the guidance provided in Generic Letter 83-37 and meet the intent of the Standard Technical Specifications and, therefore, are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.32, the Commission has determined that issuing these amendments will have no significant impact on the environment (54 FR24055).

4.0 CONCLUSION

The Commission published Notices of Consideration of Issuance of these amendments in the Federal Register (50 FR 20975) on May 21, 1985, (53 FR 13037) on April 20, 1988, and (53 FR 20394) on June 3, 1988, and consulted with the state of South Carolina. No public comments were received, and the state of South Carolina did not have any comments.

We have 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, and (2) 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.

Principal Contributors: T. Huang, SRXB/DEST
L. Phillips, SRXB/DEST
B. Marcus, SICB/DEST
J. Joyce, SICB/DEST
C. Nichols, SPLB/DEST
J. Wermiel, SPLB/DEST
D. Hood, PD#II-3/DRP-I/II

Dated: June 6, 1989

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DUKE POWER COMPANY

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

NOTICE OF WITHDRAWAL OF APPLICATION FOR

AMENDMENT TO FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Duke Power Company (the licensee) to withdraw a portion of its October 8, 1984 application for proposed amendments to Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina.

The withdrawn portion of the proposed amendments would have revised the Technical Specifications related to post-accident sampling and sampling and analysis of plant effluents.

The Commission has previously issued a Notice of Consideration of Issuance of Amendments published in the FEDERAL REGISTER on May 21, 1985 (50 FR 20975). However, by letter dated May 17, 1989, the licensee withdrew a portion of the proposed change.

For further details with respect to this action, see the application for amendment dated October 8, 1984, and the licensee's letter dated May 17, 1989, which withdrew a portion of the application for license amendments. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, N. W., Washington, D.C., and the Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691.

Dated at Rockville, Maryland this 6th day of June 1989 .

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Lawrence P. Crocker, Acting Director
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

*See previous concurrence

PDII-3	PDII-3	PDII-3
MRood*	LWiens*	LCrocker
05/25/89	05/26/89	6/2/89

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DUKE POWER COMPANY

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

NOTICE OF WITHDRAWAL OF APPLICATION FOR

AMENDMENT TO FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Duke Power Company (the licensee) to withdraw a portion of its October 8, 1984 application for proposed amendments to Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina.

The withdrawn portion of the proposed amendments would have revised the Technical Specifications related to post-accident sampling and sampling and analysis of plant effluents.

The Commission has previously issued a Notice of Consideration of Issuance of Amendments published in the FEDERAL REGISTER on May 21, 1985 (50 FR 20975). However, by letter dated May 17, 1989, the licensee withdrew a portion of the proposed change.

For further details with respect to this action, see the application for amendment dated October 8, 1984, and the licensee's letter dated May 17, 1989, which withdrew a portion of the application for license amendments. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, N. W., Washington, D.C., and the Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691.

Dated at Rockville, Maryland this 6th day of June 1989 .

FOR THE NUCLEAR REGULATORY COMMISSION

Lawrence P. Crocker

Lawrence P. Crocker, Acting Director
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DUKE POWER COMPANY

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

NOTICE OF WITHDRAWAL OF APPLICATION FOR

AMENDMENT TO FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Duke Power Company (the licensee) to withdraw a portion of its October 8, 1984 application for proposed amendments to Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina.

The withdrawn portion of the proposed amendments would have revised the Technical Specifications related to post-accident sampling and sampling and analysis of plant effluents.

The Commission has previously issued a Notice of Consideration of Issuance of Amendments published in the FEDERAL REGISTER on May 21, 1985 (50 FR 20975). However, by letter dated May 17, 1989, the licensee withdrew a portion of the proposed change.

For further details with respect to this action, see the application for amendment dated October 8, 1984, and the licensee's letter dated May 17, 1989, which withdrew a portion of the application for license amendments. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, N. W., Washington, D.C., and the Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691.

Dated at Rockville, Maryland this day of .

FOR THE NUCLEAR REGULATORY COMMISSION

PD II-3	PD II-3	PD II-3
MRood	LWiens	DMatthews
5/25/89	5/26/89	5// /89

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

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

June 6, 1989

DISTRIBUTION:
[redacted]
PD II-3 Reading
MRood
LWiens

DOCKET NOS. 50-269/270/287

MEMORANDUM FOR: Regulatory Publications Branch
Division of Freedom of Information and Publications Services
Office of Administration and Resources Management

FROM: Office of Nuclear Reactor Regulation

SUBJECT: Oconee Nuclear Station, Units 1, 2, and 3 (Duke Power Company)

One signed original of the *Federal Register* Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (5) of the Notice are enclosed for your use.

- ☐ Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- ☐ Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- ☐ Notice of Consideration of Issuance of Amendment to Facility Operating License. (Call with____-day insert date).
- ☐ Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- ☐ Notice of Availability of NRC Draft/Final Environmental Statement.
- ☐ Notice of Limited Work Authorization.
- ☐ Notice of Availability of Safety Evaluation Report.
- ☐ Notice of Issuance of Construction Permit(s).
- ☐ Notice of Issuance of Facility Operating License(s) or Amendment(s).
- ☐ Order.
- ☐ Exemption.
- ☐ Notice of Granting Exemption.
- ☐ Environmental Assessment.
- ☐ Notice of Preparation of Environmental Assessment.
- ☐ Receipt of Petition for Director's Decision Under 10 CFR 2.206.
- ☐ Issuance of Final Director's Decision Under 10 CFR 2.206.
- ☒ Other: Notice of Withdrawal of Application for Amendment to Facility Operating License

Enclosure:
As stated

Contact: M. Rood
Phone: 21487

OFFICE	PD II-3						
SURNAME	MRood						
DATE	6/6/89						

NRC FORM 318 (10/80) NRCM 0240

OFFICIAL RECORD COPY