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Docket No. 50-416

Mr. J.P. McGaughy, Jr.
Assistant Vice President - Nuclear
Production
Mississippi Power & Light Company
P.O. Box 1640
Jackson, Mississippi 39205

LB#2 File WJones, QA
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EHylton BPCotter, ASLBP
Wagner, OELD ARosenthal, ASLAP
DEisenhut/RPurple ACRS (16)
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JMTaylor, DRP:IE
LJHarmon, IE File (2)
JSauder
WMiller
IDinitz

Dear Mr. McGaughy:

Subject: Amendment No. 5 to Facility Operating License No. NPF-13 -
Grand Gulf Nuclear Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 5 to Facility Operating License No. NPF-13 for the Grand Gulf Nuclear Station, Unit 1. The amendment is in response to your two letters dated September 13, 1982. The amendment grants changes to the Technical Specifications and to a license condition. The changes to the Technical Specifications relate to Specifications 3.4.9.1 and 3.4.9.2, Limiting Conditions for Operation of the Residual Heat Removal Systems. The change to the license condition relates to the schedule for completion of open items and corrective actions for the environmental qualification of safety-related electrical equipment.

A copy of the related safety evaluation supporting Amendment No. 5 to Facility Operating License NPF-13 is enclosed. Also enclosed is a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

8212300184 821220
PDR ADDCK 05000416
P PDR

Enclosures:

- 1. Amendment No. 5 to NPF-13
- 2. Safety Evaluation
- 3. Federal Register Notice

cc w/enclosures:
See next page

*SEE ATTACHED PAGE FOR PREVIOUS CONCURRENCES

OFFICE	DL:LB#2/PM*	DL:LB#2/LA*	DL:LB#2/BC*				
SURNAME	DHouston:pt	EHylton	ASchwencer				
DATE	11/8/82	11/8/82	11/9/82				

Docket No. 50-416

Mr. J.P. McGaughey, Jr.
Assistant Vice President - Nuclear
Production
Mississippi Power & Light Company
P.O. Box 1640
Jackson, Mississippi 39205

Dear Mr. McGaughey:

Subject: Amendment No. 5 to Facility Operating License No. NPF-13 -
Grand Gulf Nuclear Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 5 to Facility Operating License No. NPF-13 for the Grand Gulf Nuclear Station, Unit 1. The amendment is in response to your two letters dated September 13, 1982. The amendment grants changes to the Technical Specifications and to a license condition. The changes to the Technical Specifications relate to Specifications 3.4.9.1 and 3.4.9.2, Limiting Conditions for Operation of the Residual Heat Removal Systems. The change to the license condition relates to the schedule for completion of open items and corrective actions for the environmental qualification of safety-related electrical equipment.

A copy of the related safety evaluation supporting Amendment No. 5 to Facility Operating License NPF-13 is enclosed. Also enclosed is a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 5 to NPF-13
2. Safety Evaluation
3. Federal Register Notice

cc w/enclosures:
See next page

[Handwritten signatures and initials]

12/16
MW Hodges :SL/RSB/DSI
12/15/82
R/SB
EQB/RSL
RLaGrange
12/14/82

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DATE	11/8/82	11/8/82	11/9/82	11/1/82	11/12/82	11/ /82	11/22/82

Grand Gulf

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Assistant Vice President
Nuclear Production
Mississippi Power & Light Company
P. O. Box 1640
Jackson, Mississippi 39205

cc: Robert B. McGehee, Esquire
Wise, Carter, Child, Steen and Caraway
P. O. Box 651
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Troy B. Conner, Jr., Esquire
Conner and Wetterhahn
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Washington, D. C. 20006

Dr. D. C. Gibbs, Vice President
Middle South Energy, Inc.
225 Baronne Street
P. O. Box 6100
New Orleans, Louisiana 70161

Mr. John Richardson
Mississippi Power & Light Company
P. O. Box 1640
Jackson, Mississippi 39205

Mr. R. Trickovic, Project Engineer
Grand Gulf Nuclear Station,
Bechtel Power Corporation
Gaithersburg, Maryland 20760

Mr. Alan G. Wagner
Resident Inspector
Route 2, Box 150
Port Gibson, Mississippi 39150

Office of the Attorney General
Attn: William J. Guste, Jr.
Department of Justice, Suite C
7434 Parkins Road
Baton Rouge, Louisiana 70808

Grand Gulf

cc: (continued)

President
Claiborne County Board of Supervisors
Port Gibson, Mississippi 39150

Office of the Governor
State of Mississippi
Jackson, Mississippi 39201

U. S. Environmental Protection Agency
Attn: EIS Coordinator
Region IV Office
345 Courtland Street, N. E.
Atlanta, Georgia 30309

MISSISSIPPI POWER AND LIGHT COMPANY

MIDDLE SOUTH ENERGY, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

License No. NPF-13
Amendment No. 5

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The two applications for the amendments filed by the Mississippi Power and Light Company dated September 13, 1982 comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. 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 amended as follows:
 - A. Page changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) to read as follows:
 - (2) The Technical Specifications contained in Appendix A, as revised through Amendment No. 5, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

OFFICE ▶	8212300188	821220	.....	.....	.....	.....	.....
SURNAME ▶	PDR ADOCK	05000416	.....	.....	.....	.....	.....
DATE ▶	P	PDR	.....	.....	.....	.....	.....

B. Change paragraph 2.C.12.c to read as follows:

2.C.12 Environmental Qualifications

(c) MP&L shall complete the following actions on schedules specified with each:

- (i) Prior to exceeding 5% thermal power, MP&L shall implement the aging requirements specified in Section 3.7 and Section 4.3 of Appendix H of Supplement No. 2 of the Safety Evaluation Report.
- (ii) Corrective actions for equipment identified in Exhibit B (Equipment Requiring Additional Information and/or Corrective Action) of Appendix H to Supplement No. 2 of the Safety Evaluation Report shall be completed ~~in accordance with the time requirements to be specified in the final 10 CFR 50.49 rulemaking on environmental qualification.~~ *by the end of the last refueling outage.*
- (iii) For equipment identified by MP&L in letters dated September 1, 1981, December 21, 1981, and April 8, 1982, requiring either replacement or modification to justify interim operation, MP&L shall complete this work prior to exceeding 5% thermal power.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: November , 1982

* See Attached page for previous concurrences.

OFFICE	DL:LB#2/PM	DL:LB#2/LA	DL:LB#2/BC	OELD	DL:AD/IR	DL:DIR	DE:AD/MQE
SURNAME	DHouston:pt	EHylton	ASchwencer		TNovak	DEisenhut	WJohnston
DATE	11/ 8 /82	11/ 8 /82	11/ 9 /82	11/ 9 /82	11/ 8 /82	11/ /82	11/ /82

B. Change paragraph 2.C.12.c to read as follows:

2.C.12 Environmental Qualifications

(c) MP&L shall complete the following actions on schedules specified with each:

- (i) Prior to exceeding 5% thermal power, MP&L shall implement the aging requirements specified in Section 3.7 and Section 4.3 of Appendix H of Supplement No. 2 of the Safety Evaluation Report.
- (ii) Corrective actions for equipment identified in Exhibit B (Equipment Requiring Additional Information and/or Corrective Action) of Appendix H to Supplement No. 2 of the Safety Evaluation Report shall be completed by the end of the first refueling outage.
- (iii) For equipment identified by MP&L in letters dated September 1, 1981, December 21, 1981, and April 8, 1982, requiring either replacement or modification to justify interim operation, MP&L shall complete this work prior to exceeding 5% thermal power.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: December 20, 1982

*SEE ATTACHED PAGES FOR PREVIOUS CONCURRENCES

OFFICE	*DL:LB#2/PM	*DL:LB#2/LA	*DL:LB#2/BC	*OELD	*DL:AD/L	DL:DIR	DEAD/JOE
SURNAME	DHouston:pt	EHylton	ASchwencer	RRawson	TNovak	DEisenhut	WJohnston
DATE	11/8/82	11/8/82	11/9/82	11/9/82	11/12/82	11/12/82	11/23/82

B. Change paragraph 2.C.12.c to read as follows:

2.C.12 Environmental Qualifications

(c) MP&L shall complete the following actions on schedules specified with each:

- (i) Prior to exceeding 5% thermal power, MP&L shall implement the aging requirements specified in Section 3.7 and Section 4.3 of Appendix H of Supplement No. 2 of the Safety Evaluation Report.
- (ii) Corrective actions for equipment identified in Exhibit B (Equipment Requiring Additional Information and/or Corrective Action) of Appendix H to Supplement No. 2 of the Safety Evaluation Report shall be completed in accordance with the time requirements to be specified in the final 10 CFR 50.49 rulemaking on environmental qualification.
- (iii) For equipment identified by MP&L in letters dated September 1, 1981, December 21, 1981, and April 8, 1982, requiring either replacement or modification to justify interim operation, MP&L shall complete this work prior to exceeding 5% thermal power.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: November , 1982

OFFICE	DL:LB#2/PM	DL:LB#2/LA	DL:LB#2/BC	OELD	DL:AD/L	DL:DIR	
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DATE	11/8/82	11/8/82	11/ /82	11/9/82	11/ /82	11/ /82	

ATTACHMENT TO LICENSE AMENDMENT NO. 5

FACILITY OPERATING LICENSE NO. NPF-13

DOCKET NO. 50-416

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. This revised page is identified by Amendment number and contains a vertical line indicating the area of change.

REMOVE

3/4 4-24

3/4 4-25

INSERT

3/4 4-24

3/4 4-25

REACTOR COOLANT SYSTEM

3/4.4.9 RESIDUAL HEAT REMOVAL

HOT SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.9.1 Two[#] shutdown cooling mode loops of the residual heat removal (RHR) system shall be OPERABLE and, unless at least one recirculation pump is in operation, at least one shutdown cooling mode loop shall be in operation*,^{##} with each loop consisting of at least:

- a. One OPERABLE RHR pump, and
- b. One OPERABLE RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITION 3, with reactor vessel pressure less than the RHR cut-in permissive setpoint.

ACTION:

- a. With less than the above required RHR shutdown cooling mode loops OPERABLE, immediately initiate corrective action to return the required loops to OPERABLE status as soon as possible. Within one hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable RHR shutdown cooling mode loop. Be in at least COLD SHUTDOWN within 24 hours.**
- b. With no RHR shutdown cooling mode loop in operation, immediately initiate corrective action to return at least one loop to operation as soon as possible. Within one hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

SURVEILLANCE REQUIREMENTS

4.4.9.1 At least one shutdown cooling mode loop of the residual heat removal system or alternate method shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

[#]One RHR shutdown cooling mode loop may be inoperable for up to 2 hours for surveillance testing provided the other loop is OPERABLE and in operation.

*The shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period provided the other loop is OPERABLE.

^{##}The RHR shutdown cooling mode loop may be removed from operation during hydrostatic testing.

**Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

REACTOR COOLANT SYSTEM

COLD SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.9.2 Two[#] shutdown cooling mode loops of the residual heat removal (RHR) system shall be OPERABLE and, unless at least one recirculation pump is in operation, at least one shutdown cooling mode loop shall be in operation*,^{##} with each loop consisting of at least:

- a. One OPERABLE RHR pump, and
- b. One OPERABLE RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITION 4.

ACTION:

- a. With less than the above required RHR shutdown cooling mode loops OPERABLE, within one hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable RHR shutdown cooling mode loop.
- b. With no RHR shutdown cooling mode loop in operation, within one hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

SURVEILLANCE REQUIREMENTS

4.4.9.2 At least one shutdown cooling mode loop of the residual heat removal system or alternate method shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

[#]One RHR shutdown cooling mode loop may be inoperable for up to 2 hours for surveillance testing provided the other loop is OPERABLE and in operation.

*The shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period provided the other loop is OPERABLE.

^{##}The shutdown cooling mode loop may be removed from operation during hydrostatic testing.



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

SAFETY EVALUATION
AMENDMENT NO. 5 TO NPF-13
GRAND GULF NUCLEAR STATION, UNIT 1
DOCKET NO. 50-416

Introduction

The licensee proposed changes to the License for Grand Gulf Unit 1 which are as follows:

- a) Technical Specifications 3.4.9.1 and 3.4.9.2, Limiting Conditions for Operation of the Residual Heat Removal System (MP&L letter dated September 13, 1982).
- b) License Condition 2.C.12.c, Environmental Qualification (MP&L letter dated September 13, 1982).

Evaluation

a) Residual Heat Removal System

The licensee has requested a change in the Technical Specifications relating to the residual heat removal (RHR) systems to reflect credit for having at least one recirculation pump in operation during hot and cold shutdown conditions. In the current BWR Standard Technical Specifications (STS), we recognize the capability of the recirculation pumps for these conditions and have approved the BWR STS to include the operation of at least one recirculation pump as an equal alternate for the recirculation of reactor coolant to prevent temperature stratification.

Regarding adequate mixing or stratification, the recirculation pumps are preferable to a shutdown cooling loop in operation due to the higher flow rates and the more direct flow path. RHR shutdown cooling is effective in providing mixing; however, the recirculation pump offers obvious advantages in assuring that the coolant within the reactor pressure vessel is adequately mixed. We find the proposed changes to the Technical Specifications to be in accordance with the current BWR STS and, therefore, are acceptable.

b) Environmental Qualifications

The licensee has requested a change in the schedule for completion of open items and corrective actions for the environmental qualification of safety-related electrical equipment. When our previous safety evaluation report was issued on this subject, we had requested that the open items and corrective actions be completed by September 15, 1982. Our completion date had been selected on the basis of the licensee's projected schedule for the plant completion and its readiness to proceed above the 5% thermal power level. Since that time, the plant schedule has slipped considerably. On September 13, 1982, the licensee requested a change in the license condition to be more in line with the projected power ascension schedule.

For the implementation of the identified aging requirements, the licensee requested a change in the schedule for the completion of these requirements prior to exceeding 5% thermal power. For our concern associated with aging requirements, the licensee had developed a plan for surveillance and maintenance to ensure that equipment would not degrade sooner than predicted. We had reviewed the outline of that plan and reported in the Grand Gulf Safety Evaluation Report, Supplement No. 2, dated June 1982, that the plan was acceptable. We stated that the surveillance and maintenance program procedures were to be implemented before full power operation. The licensee has committed to implement these requirements prior to exceeding 5% power. We find this commitment acceptable.

For the equipment identified as requiring additional information and/or corrective action, the licensee has requested a change in the schedule for completion of these items prior to the end of the first refueling outage. This involves equipment for which full qualification documentation does not yet exist. Commission Memorandum and Order (CLI 80-21) provides for justification for interim operation with equipment without full qualification documentation. The licensee has provided justifications for interim operation with this equipment. We have reviewed the justifications and find them acceptable. Therefore, we find the change in the schedule to the first refueling outage to be acceptable.

For the identified equipment requiring replacement or modification to justify interim operation, the licensee has requested a change for the completion of these items prior to exceeding 5% thermal power. Operation from fuel load up to 5% power will not involve a significant buildup of fission product inventory or decay heat, thus, the consequences of any accident will be greatly diminished during the low power operating period. The malfunction of any of this equipment would not alter significantly the consequences of any postulated accident assumed to occur during this period of operation. Therefore, we find this change in the completion schedule for these items to be acceptable.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact, and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this statement.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 20, 1982

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-416

MISSISSIPPI POWER AND LIGHT COMPANY

MIDDLE SOUTH ENERGY, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

NOTICE OF ISSUANCE OF AMENDMENT OF FACILITY

OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 5 to Facility Operating License No. NPF-13, issued to Mississippi Power and Light Company, Middle South Energy, Inc., and South Mississippi Electric Power Association (the licensees), for Grand Gulf Nuclear Station, Unit No. 1 (the facility) located in Claiborne County, Mississippi. This amendment grants changes to the Technical Specifications and to a license condition. The changes to the Technical Specifications relate to Specifications 3.4.9.1 and 3.4.9.2, Limiting Conditions for Operation of the Residual Heat Removal Systems. The change to the license condition relates to the schedule for completion of open items and corrective actions for the environmental qualification of safety-related electrical equipment. The amendment is effective as of the date of issuance.

The applications for the amendments comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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SURNAME

DATE

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the two applications for the amendments dated September 13, 1982; (2) Amendment No. 5 to License NPF-13 dated December 20, 1982; and (3) the Commission's evaluation dated December 20, 1982. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555, and at the Hinds Jr. College, George M. McLendon Library, Raymond, Mississippi 39154. A copy of items (1), (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 20 th day of December 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

[Signature]

A. Bournia, Acting Chief
Licensing Branch No. 2
Division of Licensing

*SEE ATTACHED PAGE FOR PREVIOUS CONCURRENCES

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DATE	11/8/82	11/8/82	11/9/82	11/9/82	12/20/82		

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the two applications for the amendments dated September 13, 1982; (2) Amendment No. 5 to License NPF-13 dated December 20, 1982; and (3) the Commission's evaluation dated December 20, 1982. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555, and at the Hinds Jr. College, George M. McLendon Library, Raymond, Mississippi 39154. A copy of items (1), (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 20th day of December, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

*amendment and
FRD only*

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DATE	11/8/82	11/8/82	11/9/82	11/9/82			