



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

September 18, 1985

Docket No. 50-416

Mr. J. B. Richard  
Senior Vice President, Nuclear  
Mississippi Power & Light Company  
P.O. Box 23054  
Jackson, Mississippi 39205

Dear Mr. Richard:

Subject: Issuance of Amendment No. 4 to Facility Operating License  
NPF-29 Grand Gulf Nuclear Station, Unit No. 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 4 to Facility Operating License NPF-29 for the Grand Gulf Nuclear Station, Unit No. 1, located in Claiborne County, Mississippi. This amendment is in response to your letter dated July 3, 1985.

The amendment modifies the Technical Specifications to be consistent with planned equipment modifications and adds a license condition to temporarily make the railroad bay area a part of secondary containment. The Technical Specification changes become effective when equipment necessitating the changes is installed and made operable. You are requested to inform NRR by letter of the effective date of each Technical Specification change within 30 days following the date the Technical Specification becomes effective. You are also requested to inform the NRR by letter if any of the equipment installations necessitating the Technical Specification changes is delayed beyond the plant outage scheduled for October and November 1985.

A copy of the related safety evaluation supporting Amendment No. 4 to Facility Operating License NPF-29 is enclosed.

Notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

*for Elinor G. Adensam*  
Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

Enclosures:

1. Amendment No. 4
2. Safety Evaluation

cc w/enclosures:  
See next page

DESIGNATED ORIGINAL

Certified By *[Signature]*

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PDR ADOCK 05000416  
P PDR

GRAND GULF

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

MISSISSIPPI POWER & 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

Amendment No. 4  
License No. NPF-29

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Grand Gulf Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-29 filed by the Mississippi Power and Light Company acting for itself, Middle South Energy, Inc., and South Mississippi Electric Power Association (the licensees), dated July 3, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, 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 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;
  - E. The issuance of this license amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License NPF-29 is amended as follows:
  - A. Add paragraph 2.C.(39) to read as follows:

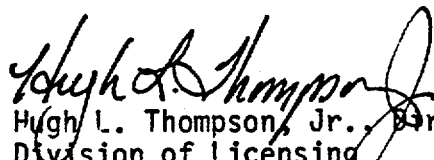
(39) Temporary Secondary Containment Boundary Change

For a period of time not to exceed 144 cumulative hours, the

provisions of Specification 3/4.6.6.1 may be applied to the railroad bay area including the exterior railroad bay door on the auxiliary building in lieu of the present secondary containment boundaries that isolate the railroad bay area. While the railroad bay area is being used as a secondary containment boundary, the railroad bay door may be opened for the purpose of moving trucks in and out provided the four hour limitation in ACTION a of Technical Specification 3.6.6.1 is reduced to one hour. A fire watch shall be established in the railroad bay area while the door is being used as a secondary containment boundary.

3. The license is further amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment. Paragraph 2.C.(2) of Facility Operating License NPF-29 is hereby amended to read as follows:
  - (2) The Technical Specifications contained in Appendix A, as revised through Amendment No. 4 and the Environmental Protection Plan contained in Appendix B are hereby incorporated into this license. Mississippi Power & Light Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
4. License Condition 2.C.(39) is effective upon issuance of this amendment and the Technical Specification changes are effective when the equipment necessitating the Technical Specification changes is installed and made operable.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Hugh L. Thompson, Jr., Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosure:  
Technical Specification Changes

Date of Issuance: September 18, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 4

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

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. The corresponding overleaf pages are also provided to maintain document completeness.

<u>Amended</u> <u>Page</u>		<u>Overleaf</u> <u>Page</u>
3/4	3-87	3/4 3-88
3/4	6-31	3/4 6-32
3/4	6-35	3/4 6-36
3/4	6-39	3/4 6-40
3/4	6-43	3/4 6-44
3/4	8-26	3/4 8-25

**TABLE 3.3.7.9-1 (Continued)**  
**FIRE DETECTION INSTRUMENTATION**

<u>ROOM</u>	<u>ELEV</u>	<u>ROOM NAME</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
			<u>HEAT</u> <u>(X/Y)</u>	<u>FLAME</u> <sup>(1)</sup> <u>(X/Y)</u>	<u>SMOKE</u> <sup>(1)</sup> <u>(X/Y)</u>
12. Zone 2-17					16/0
1A101	93'	Passage			
1A109	93'	HPCS Pump Rm.			
1A111	93'	Piping Penetration Rm.			
1A114	93'	Fan Coil Area (Partial)			
1A117	93'	Misc. Equip. Area (Partial)			
1A121	103'	East Corridor			
1A122	103	South Corridor (Partial)			
1A123	103'	North Corridor (Partial)			
13. Zone 2-18					20/0
1A201	119'	East Corridor			
1A211	119'	North Corridor (Partial)			
1A215	119'	South Corridor (Partial)			
14. Zone 2-19					13/0
1A314	139'	South Corridor (Partial)			
1A316	139'	North Corridor (Partial)			
1A321	139'	MCC Area			
1A322	139'	Centrifugal Chiller Area			
1A323	139'	SGTS Area			
1A324	139'	HVAC Equip. Area			
1A326	139'	SGTS Area			
15. Zone 2-20					2/0
1A305	139'	Steam Tunnel			
16. Zone 2-21					4/0
1A12	185'	Stairwell			
1A12	208'	Stairwell			
1A12	245'	Stairwell			
<b>d. <u>DIESEL GENERATOR BUILDING</u></b>					
1. Zone 2-10				9/0	
1D301	133'	Corridor	0/3 (Deluge)		
1D304	133'	Day Tank Area			
1D306	133'	Div. III Diesel Gen. Room			
1D401	158'	Div. III Diesel Gen. Room	0/7 (Deluge)		
2. 2-11				6/0	
1D303	133'	Day Tank Area			
1D308	133'	Div. II Diesel Gen. Room			
1D402	158'	Div. II Diesel Gen. Room	0/7 (Deluge)		

TABLE 3.3.7.9-1 (Continued)  
FIRE DETECTION INSTRUMENTATION

<u>ROOM</u>	<u>ELEV</u>	<u>ROOM NAME</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
			<u>HEAT</u> <u>(X/Y)</u>	<u>FLAME</u> <sup>(1)</sup> <u>(X/Y)</u>	<u>SMOKE</u> <sup>(1)</sup> <u>(X/Y)</u>
3.	Zone 2-12			6/0	
1D302	133'	Day Tank Area			
1D310	133'	Div. I Diesel Gen. Room			
1D403	158'	Div. I Diesel Gen. Room	0/7 (Deluge)		
e.	<u>STANDBY SERVICE WATER PUMP HOUSE</u>				
1.	Zone 2-1				4/0
1M110	133'	SSW Pump Rm. A			
1M112	133'	SSW Valve Rm. A			
2M110	133'	SSW Pump Rm. B			
2M112	133'	SSW Valve Rm. B			
f.	<u>CHARCOAL FILTER TRAINS</u>				
1.	Standby Gas Treatment System Filter Trains A & B			2/0 (Allison Thermistor Wire)	
	Auxiliary Building El. 139'				
2.	Control Room Standby Fresh Air System Filter Trains A & B			2/0 (Allison Thermistor Wire)	
	Control Building El. 133'				
g.	<u>CONTROL BUILDING (PGCC HALON SYSTEMS)</u>				
OC503	166'	Control Room (Unit 1 side)			
		Module/Halon Panel			
		1H13-U700/1H13-P900	0/10		10/0
		1H13-U701/1H13-P901	0/10		15/0
		1H13-U702/1H13-P902	0/9		14/0
		1H13-U703/1H13-P903	0/11		17/0
		1H13-U720/1H13-P920	0/7		13/0
		SH13-U730/1H13-P930	0/11		12/0
		1H13-U738/1H13-P938	0/10		12/0
		SH13-U739/SH13-P939	0/5		14/0

**TABLE 3.6.4-1 (Continued)**  
**CONTAINMENT AND DRYWELL ISOLATION VALVES**

<u>SYSTEM AND VALVE NUMBER</u>	<u>PENETRATION NUMBER</u>	<u>VALVE GROUP</u> <sup>(a)</sup>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>	
<u>Containment (Continued)</u>				
Main Steam Line Drains	B21-F016-B	19(I)	1	20
RHR Heat Exchanger "A" to LPCI	E12-F028A-A	20(I)	5	90
RHR Heat Exchanger "A" to LPCI	E12-F037A-A	20(I)	3	74
RHR Heat Exchanger "B" to LPCI	E12-F028B-B	21(I)	5	90
RHR Heat Exchanger "B" to LPCI	E12-F037B-B	21(I)	3	74
RHR "A" Test Line to Supp. Pool	E12-F024A-A	23(O) <sup>(d)</sup>	5	90
RHR "A" Test Line to Supp. Pool	E12-F011A-A	23(O) <sup>(d)</sup>	5	36
RHR "C" Test Line to Supp. Pool	E12-F021-B	24(O) <sup>(d)</sup>	5	144
HPCS Test Line	E22-F023-C	27(O) <sup>(d)</sup>	6B	75
RCIC Pump Suction	E51-F031-A	28(O) <sup>(d)</sup>	4	56
RCIC Turbine Exhaust	E51-F077-A	29(O) <sup>(c)</sup>	9	26
LPCS Test Line	E21-F012-A	32(O) <sup>(d)</sup>	5	144
Cont. Purge and Vent Air Supply	M41-F011-(A)	34(O)	7	4
Cont. Purge and Vent Air Supply	M41-F012-(B)	34(I)	7	4
Cont. Purge and Vent Air Exh.	M41-F034-(B)	35(I)	7	4
Cont. Purge and Vent Air Exh.	M41-F035-(A)	35(O)	7	4
Plant Service Water Return	P44-F070-B	36(I)	6A	33
Plant Service Water Return	P44-F069-A	36(O)	6A	33
Plant Service Water Supply	P44-F053-A	37(O)	6A	33
Chilled Water Supply	P71-F150-(A)	38(O)	6A	12



TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>	<u>PENETRATION NUMBER</u>	<u>VALVE GROUP</u> <sup>(a)</sup>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
<u>Containment (Continued)</u>			
Chilled Water Return	P71-F148-(A) 39(O)	6A	12
Chilled Water Return	P71-F149-(B) 39(I)	6A	12
Service Air Supply	P52-F105-(A) 41(O)	6A	6
Inst. Air Supply	P53-F001-(A) 42(O)	6A	6
RWCU to Main Condenser	G33-F034-A 43(O)	8	35
RWCU to Main Condenser	G33-F028-B 43(I)	8	35
RWCU Backwash to C/U Phase Sep. Tank	G36-F106-(B) 49(I)	6A	11
RWCU Backwash to C/U Phase Sep. Tank	G36-F101-(A) 49(O)	6A	11
Drywell & Cont. Equip. Drain Sump Disch.	P45-F067-(B) 50(I)	6A	7
Drywell & Cont. Equip. Drain Sump Disch.	P45-F068-(A) 50(O)	6A	7
Drywell & Cont. Floor Drain Sump Disch.	P45-F061-(B) 51(I)	6A	7
Drywell & Cont. Floor Drain Sump Disch.	P45-F062-(A) 51(O)	6A	7
Condensate Supply	P11-F075-(A) 56(O)	6A	10
FPC & CU to Upper Cont. Pool	G41-F028-A 57(O)	6A	51
Upper Cont. Pool to Fuel Pool Drain Tank	G41-F029-A 58(O)	6A	51
Upper Cont. Pool to Fuel Pool Drain Tank	G41-F044-B 58(I)	6A	40
Aux. Bldg. Flr. and Equip. Drn. Tks. to Supp. Pool	P45-F273-A 60(O)	6A	32
Aux. Bldg. Flr. and Equip. Drn. Tks. to Supp. Pool	P45-F274-B 60(O)	6A	32

TABLE 3.6.4-1 (Continued)  
CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>		<u>PENETRATION NUMBER</u>
2. <u>Manual Isolation Valves</u> (g)#		
a. <u>Containment</u>		
Main Steam Lines	E32-F001A-A	5(0)
Main Steam Lines	E32-F001E-A	6(0)
Main Steam Lines	E32-F001J-A	7(0)
Main Steam Lines	E32-F001N-A	8(0)
Feedwater Inlet	B21-F065A-A	9(0)
Feedwater Inlet	B21-F065B-A	10(0)
RHR Pump "A"	E12-F004A-A	11(0) (d)
Suction		
RHR Pump "B"	E12-F004B-B	12(0) (d)
Suction		
RHR Pump "C"	E12-F004C-B	13(0) (d)
Suction		
RHR Heat Exchanger	E12-F042A-A	20(I)
"A" to LPCI		
RHR Heat Ex. "A"	E12-F027A-A	20(0)
to LPCI		
RHR Heat Exchanger	E12-F042B-B	21(I)
"B" to LPCI		
RHR Heat Ex. "B"	E12-F027B-B	21(0)
to LPCI		
RHR Pump "C" to	E12-F042C-B	22(0)
LPCI		
RHR "A" Test Line	E12-F064A-A	23(0) (d)
To Suppr. Pool		
RHR "C" Test Line	E12-F064C-B	24(0) (d)
To Suppr. Pool		
HPCS Suction	E22-F015-C	25(0) (d)
HPCS Discharge	E22-F004-C	26(0)
HPCS Test Line	E22-F012-C	27(0) (d)
RCIC Turbine Exh.	E51-F068-A	29(0) (c)
LPCS Pump Suction	E21-F001-A	30(0) (d)
LPCS Pump	E21-F005-A	31(0)
Discharge		
LPCS Min. Flow	E21-F011-A	32(0) (d)
CRD Pump	C11-F083-A	33(0)
Discharge		
CCW Supply	P42-F066-A	44(0)
CCW Return	P42-F067-A	45(0)
CCW Return	P42-F068-B	45(I)
RCIC Pump	E51-F019-A	46(0) (d)
Discharge		
Min. Flow		
Reactor Recirc.	B33-F128-B	47(I)
Post Accident		
Sampling		

TABLE 3.6.4-1 (Continued)  
CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>	<u>PENETRATION NUMBER</u>
<u>Containment (Continued)</u>	
Reactor Recirc. Post Accident Sampling	B33-F127-A 47(O)
Vent Header to Supp. Pool	E12-F073B-B 48(O) <sup>(d)</sup>
RHR Pump "B" Test Line	E12-F064B-B 67(O) <sup>(d)</sup>
RHR "C" Relief Vlv. Vent Hdr. to Suppr. Pool & Post-Acc. Sample Ret.	E12-F346-B 71B(O) <sup>(c)</sup>
RHR Heat Ex. "A" Relief	E12-F073A-A 77(O) <sup>(d)</sup>
Reactor Recirc. Accident Sampling	B33-F126-B 81(I)
Reactor Recirc. Accident Sampling	B33-F125-A 81(O)
SSW Supply "A"	P41-F159A-A 89(O) <sup>(c)</sup>
SSW Return "A"	P41-F168A-A 90(I) <sup>(c)</sup>
SSW Return "A"	P41-F160A-A 90(O) <sup>(c)</sup>
SSW Return "B"	P41-F168B-B 91(I) <sup>(c)</sup>
SSW Return "B"	P41-F160B-B 91(O) <sup>(c)</sup>
SSW Supply "B"	P41-F159B-B 92(O) <sup>(c)</sup>
Drywell Press. Inst.	M71-F593-A 101C(O)
Drywell Press. Inst.	M71-F591A-A 101F(O)
Drywell Press. Inst.	M71-F591B-B 102D(O)
Ctmt. Press. Inst.	M71-F592A-A 103D(O)
Ctmt. Press. Inst.	M71-F592B-B 104D(O)
Drywell H <sub>2</sub> Analyzer Sample	E61-F595C-(A) 106A(O)
Drywell H <sub>2</sub> Analyzer Sample	E61-F595D-(B) 106A(I)
Drywell H <sub>2</sub> Analyzer Sample Ret.	E61-F597C-(A) 106B(O)
Drywell H <sub>2</sub> Analyzer Sample Ret.	E61-F597D-(B) 106B(I)
Ctmt. H <sub>2</sub> Analyzer Sample	E61-F596C-(A) 105A(O)
Ctmt. H <sub>2</sub> Analyzer Sample	E61-F596D-(B) 105A(I)
Ctmt. H <sub>2</sub> Analyzer Sample Ret.	E61-F598C-(A) 106E(O)
Ctmt. H <sub>2</sub> Analyzer Sample Ret.	E61-F598D-(B) 106E(I)

TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>	<u>PENETRATION NUMBER</u>
<u>Containment (Continued)</u>	
RHR Pump "A" Test Line to Suppr. Pool	E12-F227 23(0) <sup>(e)</sup>
RHR Pump "A" Test Line to Suppr. Pool	E12-F262 23(0) <sup>(e)</sup>
RHR Pump "A" Test Line to Suppr. Pool	E12-F228 23(0) <sup>(e)</sup>
RHR "A" Test Line to Suppr. Pool	E12-F290A-A 23(0) <sup>(d)</sup>
RHR Pump "A" Test Line to Suppr. Pool	E12-F338 23(0) <sup>(c)</sup>
RHR Pump "A" Test Line to Suppr. Pool	E12-F339 23(0) <sup>(c)</sup>
RHR Pump "A" Test Line to Suppr. Pool	E12-F260 23(0) <sup>(e)</sup>
RHR Pump "C" Test Line to Suppr. Pool	E12-F280 24(0) <sup>(d)</sup>
RHR Pump "C" Test Line to Suppr. Pool	E12-F281 24(0) <sup>(d)</sup>
HPCS Suction	E22-F014 25(0) <sup>(d)</sup>
HPCS Discharge	E22-F005-(C) 26(I)
HPCS Discharge	E22-F218 26(I)
HPCS Discharge	E22-F201 26(I)
HPCS Test Line	E22-F035 27(0) <sup>(d)</sup>
HPCS Test Line	E22-F302 27(0) <sup>(e)</sup>
HPCS Test Line	E22-F301 27(0) <sup>(e)</sup>
LPCS Pump Suction	E21-F031 30(0) <sup>(d)</sup>
LPCS Discharge	E21-F006-(A) 31(I)
LPCS Discharge	E21-F200 31(I)
LPCS Discharge	E21-F207 31(I)
LPCS Test Line	E21-F217 32(0) <sup>(d)</sup>
LPCS Test Line	E21-F218 32(0) <sup>(d)</sup>
CRD Pump Discharge	C11-F122 33(I)
PSW Supply	P44-F043 37(I)
Plant Chilled Water Supply	P71-F151 38(I)
Service Air Supply	P52-F122 41(I)

TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>		<u>PENETRATION NUMBER</u>
<u>Containment (Continued)</u>		
Instr. Air Supply	P53-F002	42(I)
CCW Supply	P42-F035	44(I)
RCIC Disch. Min. Flow	E51-F251	46(0)(c)
RCIC Disch. Min. Flow	E51-F252	46(0)(c)
RHR Heat Ex. "B" Relief Vent Header	E12-F055B	48(0)(d)
RHR Heat Ex. "B" Relief Vent Header	E12-F103B	48(0)(d)
RHR Heat Ex. "B" Relief Vent Header	E12-F104B	48(0)(d)
Refueling Wtr. Stg. Tk. to Upper Ctmt. Pool	G41-F053	54(0)
Refueling Wtr. Stg. Tk. to Upper Ctmt. Pool	G41-F201	54(I)
Condensate Supply FPC & CU to Upper Cont. Pool	P11-F004	56(I)
	G41-F040	57(I)
Stby. Liquid Control Sys. Mix. Tk. (future use)	C41-F151	61(I)
Stby. Liquid Control Sys. Mix. Tk. (future use)	C41-F150	61(0)
RHR Pump "B" Test Line	E12-F276	67(0)(e)
RHR Pump "B" Test Line	E12-F277	67(0)(e)
RHR Pump "B" Test Line	E12-F212	67(0)(e)
RHR Pump "B" Test Line	E12-F213	67(0)(e)
RHR Pump "B" Test Line	E12-F249	67(0)(e)
RHR Pump "B" Test Line	E12-F250	67(0)(e)
RHR Pump "B" Test Line	E12-F334	67(0)(c)

TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>	<u>PENETRATION NUMBER</u>
4. <u>Test Connections</u> <sup>(g)</sup>	
a. <u>Containment</u>	
Main Steam T/C	B21-F025A 5(0)
Main Steam T/C	B21-F025B 6(0)
Main Steam T/C	B21-F025C 7(0)
Main Steam T/C	B21-F025D 8(0)
Feedwater T/C	B21-F030A 9(0)
Feedwater T/C	B21-F063A 9(0)
Feedwater T/C	B21-F063B 10(0)
Feedwater T/C	B21-F030B 10(0)
RHR Shutdown Cool. Suction T/C	E12-F002 14(0)
RCIC Steam Line T/C	E51-F072 17(0)
RHR to Head Spray T/C	E12-F342 18(0)
RHR to Head Spray T/C	E12-F061 18(0)
LPCI "C" T/C	E12-F056C 22(0)
RHR "A" Pump Test Line T/C	E12-F322 23(0)(c)
RHR "A" Pump Test Line T/C	E12-F336 23(0)(c)
RHR "A" Pump Test Line T/C	E12-F349 23(0)(c)
RHR "A" Pump Test Line T/C	E12-F303 23(0)(c)
RHR "A" Pump Test Line T/C	E12-F310 23(0)(c)
RHR "A" Pump Test Line T/C	E12-F348 23(0)(c)
RHR "C" Pump Test Line T/C	E12-F311 24(0)(c)
RHR "C" Pump Test Line T/C	E12-F304 24(0)(c)
HPCS Discharge T/C	E22-F021 26(0)
HPCS Test Line T/C	E22-F303 27(0)(c)
HPCS Test Line T/C	E22-F304 27(0)(c)
RCIC Turbine Exhaust T/C	E51-F258 29(0)(c)
RCIC Turbine Exhaust T/C	E51-F257 29(0)(c)
LPCS T/C	E21-F013 31(0)
LPCS Test Line T/C	E21-F222 32(0)(c)
LPCS Test Line T/C	E21-F221 32(0)(c)

TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

<u>SYSTEM AND VALVE NUMBER</u>		<u>PENETRATION NUMBER</u>
<u>Containment (Continued)</u>		
CRD T/C	C11-F128	33(0)
Cont. Purge Supply T/C	M41-F042	34(0)
Cont. Purge Exhaust T/C	M41-F051	35(0)
PSW Supply T/C	P44-F333	37(0)
Plant Chilled Water T/C	P71-F232	38(0)
Plant Chilled Water T/C	P71-F246	39(0)
Ctmt. Leak Rate T/C	M61-F009	40(I)
Service Air T/C	P52-F258	41(0)
Inst. Air T/C	P53-F036	42(0)
RWCU T/C	G33-F070	43(0)
CCW Supply T/C	P42-F161	44(0)
CCW Return T/C	P42-F162	45(I)
Condensate Supply T/C	P11-F095	56(0)
FPC & CU To Upper Cont. Pool T/C	G41-F340	57(I)
Aux. Bldg. Flr. & Equip. Drain Tk. to Suppr. Pool T/C	P45-F275	60(0)
Aux. Bldg. Flr. & Equip. Drain Tk. to Suppr. Pool T/C	P45-F290	60(0)
Stby. Liquid Control Sys. Mix. Tk. T/C (future use)	C41-F152	61(0)
Combustible Gas Control T/C	E61-F017	65(0)
Purge Radiation Detector T/C	M41-F054	66(0)
RHR "B" Test Line T/C	E12-F321	67(0) <sup>(c)</sup>
RHR "B" Test Line T/C	E12-F351	67(0) <sup>(c)</sup>
RHR "B" Test Line T/C	E12-F331	67(0) <sup>(c)</sup>

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

c. 480 VAC Circuit Breakers (Continued)

Molded Case, Type NZM

BREAKER NUMBER	TRIP SETPOINT (Amperes)	RESPONSE TIME (Seconds)	SYSTEM/COMPONENT AFFECTED
52-1222-04	800	0.100	CNTMT CLR FAN COIL UNIT FAN (N1M41B001B-N)
52-1222-05	240	0.100	CNTMT COOLING SYS CHAR TRAIN FAN (N1M41D002B-N)
52-1222-09	1200	0.100	LIGHTING XFMR 1X104 (N1R18S204-E)
52-1222-11	800	0.100	480 V RECEPTACLES
52-1222-18	500	0.100	REAC. RECIRC. PUMP SPACE HEATER (TB1B33C001B)
52-1222-19	75	0.100	MOV - RWCU RETURN TO REACTOR (N1G33F042-N)
52-1222-20	32	0.100	MOV - VESSEL DRAIN LINE RECIRC. (Q1G33F101-N)
52-1222-21	75	0.100	MOV - CLEANUP LINE SUCT. IN DRYWELL (Q1G33F102-N)
52-1222-22	32	0.100	MOV - CLEANUP LINE RECIRC LOOP B (Q1G33F106-N)
52-1251-01	175	0.100	STEAM TUNNEL CLR INSIDE CNTMT (N1M41C004B-N)
52-1251-07	60	0.100	CNTMT CHEM WASTE SUMP PUMP (N1P45C027A-N)



TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

c. 480 VAC Circuit Breakers (Continued)

Molded Case, Type NZM

BREAKER NUMBER	TRIP SETPOINT (Amperes)	RESPONSE TIME (Seconds)	SYSTEM/COMPONENT AFFECTED
52-1251-13	800	0.100	CNTMT CLR FAN COIL UNIT FAN (N1M41B001C-N)
52-1251-15	32	0.100	MOV - RWCS HX INL ISOL VLV (N1G33F256-N)
52-1251-18	38	0.100	MOV - REGEN HEAT EXCHANGER BYPASS (Q1G33F107-N)
52-1251-19	38	0.100	MOV - RWCU DRAIN FLOW ORIFICE BYP (N1G33F031-N)
52-1251-20	320	0.100	CNTMT EQUIP DRAIN PUMP (N1P45C004B-N)
52-1251-22	32	0.100	MOV - RWCU TO FLT "S" ISOL VLV (N1G33F255-N)
52-1251-26	1200	0.100	LIGHTING XFMR 1X112 (N1R18S112-D)
52-1251-28	5	0.100	MOV - STM TUNNEL COOLER INLET (N1P44F105B-N)
52-1252-23	60	0.100	DRYWELL FLOOR DRAIN SUMP PUMP (N1P45C001B-N)
52-1252-27	500	0.100	FUEL TRANSFER SYS MN CONSOLE (N1F11E015-MC)
52-1411-01	38	0.100	MOV - VESSEL HEAD VENTILATION (Q1B21F002-N)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 4 TO FACILITY OPERATING LICENSE NPF-29

GRAND GULF NUCLEAR STATION, UNIT 1

MISSISSIPPI POWER & LIGHT COMPANY

MIDDLE SOUTH ENERGY, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

INTRODUCTION

By letter dated July 3, 1985, the licensee (MP&L) proposed to change the facility Technical Specifications to be consistent with equipment modifications planned to be made during a scheduled outage in October and November 1985 and to add a license condition to temporarily make the railroad bay area a part of secondary containment in order to facilitate movement of high density spent fuel racks into the auxiliary building. By letter dated August 12, 1985, licensee revised the proposed license condition to explicitly limit to one hour the time the railroad bay door could remain open for the purpose of moving a truck into or out of the bay area instead of the four-hour limitation which could be implied by the July 3 proposal. The staff's evaluation of these proposed changes is presented herein.

EVALUATION

The amendment would make five changes in the Technical Specifications: (1) add four smoke detectors in Table 3.3.7.9-1, "Fire Detection Instrumentation;" (2) add a circuit breaker in Table 3.8.4.1-1 "Primary Containment Penetration Conductor Overcurrent Protective Devices;" (3) replace three smoke detectors with three flame detectors in Table 3.3.7.9-1 "Fire Detection Instrumentation;" (4) change the local leak rate test method from pneumatic to hydrostatic for test return lines in the residual heat removal (RHR) loop "C" and the low pressure core spray system by adding footnotes for applicable valves in Table 3.6.4-1, "Containment and Drywell Isolation Valves;" and, (5) provide a temporary exception to the boundary integrity requirements in Technical Specification 3/4.6.6 "Secondary Containment" to facilitate installation of high density spent fuel racks in the auxiliary building.

The staff has reviewed these five proposed changes. Two of the proposed changes in Technical Specifications (changes (1) and (2)) are needed because of design changes being made to enhance safety of operation. The design change for Technical Specification change (1) would add fire detection instrumentation in an area containing safety related electrical cables where there are now no detectors. The design change for Technical Specification change (2) would add an overcurrent protection circuit breaker in a new 480 volt power circuit running from the horizontal fuel transfer system (HFTS) main console outside containment to a revised design HFTS inside containment. The revised design HFTS uses hydraulic

servo mechanisms to upend fuel assemblies instead of the current design HFTS which uses mechanical mechanisms. The new mechanisms will enhance safe handling of fuel assemblies by increasing the stability and reliability of the upending assembly. The new equipment is designed and will be installed in accordance with applicable regulatory requirements, industry codes and standards, the Grand Gulf Nuclear Station (GGNS) Quality Assurance Program and the GGNS Final Safety Analysis Report (FSAR). Therefore, the designs are included in the current licensing bases and are bounded by existing safety analyses in the FSAR. Based on its review of licensee's July 3, 1985, submittal as summarized herein, staff concludes that the proposed additions to Technical Specification Tables 3.3.7.9-1 and 3.8.4.1-1 (changes (1) and (2)) will enhance safe operation and are acceptable.

Technical Specification change (3) is proposed because of a design change being made to substitute flame detectors for smoke detectors in the corridor between the diesel generator building and the auxiliary building. Plant operation has demonstrated that diesel generator exhaust fumes get into the corridor causing false alarms on the smoke detectors. Flame detectors are adequate to detect a fire, and they will lessen the frequency of false fire alarms. The design change will be performed in accordance with applicable regulatory requirements, industry codes and standards, the GGNS Quality Assurance Program and the GGNS FSAR. The design change is consistent with the licensing basis and safety analyses. Based on its review of the licensee's July 3, 1985, submittal as summarized herein, the staff concludes that replacing the smoke detectors with flame detectors in Table 3.3.7.9-1 is acceptable.

In change (4) of the MP&L submittal, eight isolation valves within the residual heat removal (RHR) C and low pressure core spray (LPCS) return lines to the suppression pool would be hydrostatically leak tested as opposed to the current pneumatic leak testing. This change is based on design changes to the lines which will extend the lines to ensure that they exit below the minimum suppression pool water level. The affected isolation valves would not be exposed to the post-accident containment atmosphere conditions because of the suppression pool, i.e., the presence of water seal. Therefore, the staff finds hydrostatic leak testing of the eight (LPCS and RHR C return lines) isolation valves is justifiable once the design changes are implemented. Therefore, the proposed Grand Gulf Technical Specifications change request is acceptable.

Change (5) of the MP&L submittal proposes to amend the subject license to temporarily allow the railroad bay area including the exterior railroad bay door on the auxiliary building to be classified as a secondary containment isolation boundary. This modification would be subject to the same actions and requirements as other secondary containment isolation boundaries. The proposed amendment which is in the form of a license condition is to last during the moving of new high density spent fuel storage racks and other associated equipment into the auxiliary building, but will not exceed 144 cumulative hours. This activity is to be performed within approximately a one-month period while the plant is in operation. Currently, the present design configuration of the auxiliary building railroad bay area does not totally qualify as part of the secondary containment. This area is isolated from secondary containment by inner railroad bay doors and

overhead equipment hatch plugs. In order to move the new spent fuel racks and other equipment to the fuel handling area of the auxiliary building, the exterior railroad bay door must be opened and reclosed when a truck is placed in the railroad bay. The proposed license condition in the August 12, 1985, submittal requires that the railroad bay door not remain open longer than one hour when moving a truck into or out of the railroad bay. The equipment hatch plugs must be removed which causes a loss of secondary containment integrity as defined in the Technical Specifications. MP&L does not intend to reinstall the equipment hatch plugs each time a truckload of fuel racks or other equipment is moved into or out of the railroad bay area. Instead, MP&L proposes to use the exterior railroad bay door as a secondary containment isolation barrier during the estimated upper limit of 144 hours required to complete the task. While the railroad bay does not meet the secondary containment design requirements for tornados, fires and earthquakes, it does provide an acceptable leakage barrier. MP&L intends to demonstrate its functional operability by meeting the surveillance requirements specified in Technical Specification 4.6.6.1.b, i.e., opening the inner door and drawing the secondary containment to establish the negative pressure at the start of the license condition. For the proposed license condition period, the exterior railroad bay door will be controlled in accordance with the requirements of TS 3/4.6.6.1, such that if the bay door fails for any reason the plant will be placed in a condition where secondary containment integrity is not required.

The staff has reviewed postulated accidents while using the railroad bay as secondary containment and concludes that the proposed license amendment does not affect any conclusion or computed dose reported in staff's Safety Evaluation Report for the Grand Gulf Nuclear Station. Under the proposed amendment, the railroad bay would be used as secondary containment for a cumulative time of 144 hours and the new containment boundary would be required to pass the surveillance test of Technical Specification 4.6.6.1.b at the beginning of this period. While this temporary secondary containment boundary would be more susceptible to damage by tornado or earthquake, its ability to mitigate all design basis accidents would be equivalent to the normal boundary.

Additionally, administrative controls will be implemented during the proposed license condition period to ensure periodic monitoring of meteorological conditions so that appropriate precautions may be taken to fulfill the design requirements for tornado depressurization. A fire watch will also be established in the railroad bay during its use as secondary containment.

Based on its review of licensee's July 3 and August 12 submittals as summarized herein, and the low probability of an earthquake and an accident occurring during the short duration period the railroad bay would be used as secondary containment, the staff finds the proposed license condition in the August 12, 1985, submittal to be acceptable.

#### ENVIRONMENTAL CONSIDERATION

The amendment involves changes of requirements of facility components located within the restricted area as defined in 10 CFR 20. The Commission made a

proposed determination that the amendment involves no significant hazards consideration and there have been no comments on that proposal. Based on its evaluation, the staff concludes that there is no significant change in types or significant increase in the amounts of any effluents that may be released offsite. There is no significant increase in individual or cumulative occupational radiation exposure because the fuel racks to be handled have not been used to store irradiated fuel. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (50 FR 32796) on August 14, 1985, and consulted with the state of Mississippi. No public comments were received, and the state of Mississippi 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 issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: September 18, 1985

September 18, 1985

AMENDMENT NO. 4 TO FACILITY OPERATING LICENSE NO. NPF-29 - Grand Gulf, Unit 1

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