



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

October 21, 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. 6 to Facility Operating License
NPF-29 Grand Gulf Nuclear Station, Unit No. 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 6 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 12, 1985.

The amendment modifies the Technical Specifications related to unit organization, primary containment penetration conductor overcurrent protective devices, control rod scram accumulators, fire detection instrumentation, and electrical power systems - AC sources. Changes to Technical Specification Figure 6.2.2-1, Specification 4.1.3.3 and Table 3.3.7.9-1 are effective upon issuance of this amendment and changes to Technical Specification Table 3.8.4.1-1 and Specification Table 4.8.1.1.2.d are effective when the equipment necessitating the Technical Specification changes is installed and made operable. You are requested to inform NRR by letter of the effective date of the latter two Technical Specification changes within 30 days following the date each Technical Specification change becomes effective.

A copy of the related safety evaluation supporting Amendment No. 6 to Facility Operating License NPF-29 is enclosed.

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

Sincerely,

for J. Kintner

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

Enclosures:

1. Amendment No. 6
2. Safety Evaluation

cc w/enclosures:
See next page

MAILED
Certified By *[Signature]*

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Mississippi Power & Light Company

Grand Gulf Nuclear Station

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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. 6
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 12, 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, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C(2) of Facility Operating License No. NPF-29 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through

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Amendment No. 6 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.

3. Changes to Technical Specification Figure 6.2.2-1, Specification 4.1.3.3, and Table 3.3.7.9-1 are effective upon issuance of this amendment and changes to Technical Specification Table 3.8.4.1-1 and Specification 4.8.1.1.2.d are effective when the equipment necessitating the Technical Specification changes is installed and made operable.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Enclosure:
Technical Specification Changes

Date of Issuance: October 21, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 6

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. Corresponding overleaf pages are included to maintain document completeness.

<u>Amended</u> <u>Page</u>	<u>Overleaf</u> <u>Page</u>
6-4	
3/4 1-9	3/4 1-10
3/4 3-82	3/4 3-81
3/4 3-83	
3/4 3-84	
3/4 8-5	3/4 8-6
3/4 8-7	3/4 8-8
3/4 8-22	3/4 8-21
3/4 8-23	3/4 8-24
3/4 8-23a	

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each control rod scram accumulator shall be determined OPERABLE:

- a. At least once per 7 days by verifying that the indicated pressure is greater than the alarm setpoint unless the control rod is inserted and disarmed or scrammed.
- b. At least once per 18 months by:
 1. Performance of a:
 - a) CHANNEL FUNCTIONAL TEST of the leak detectors, and
 - b) CHANNEL CALIBRATION of the pressure detectors, and verifying an alarm setpoint of ≥ 1520 psig on decreasing pressure.
 2. Measuring and recording the time, for up to 10 minutes, that each individual accumulator check valve maintains the associated accumulator pressure above the alarm set point, starting at normal system operating pressure, with no control rod drive pump operating.

REACTIVITY CONTROL SYSTEMS

CONTROL ROD DRIVE COUPLING

LIMITING CONDITION FOR OPERATION

3.1.3.4 All control rods shall be coupled to their drive mechanisms.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 5*.

ACTION:

- a. In OPERATIONAL CONDITION 1 and 2 with one control rod not coupled to its associated drive mechanism, within 2 hours:
 1. If permitted by the RPCS, insert the control rod drive mechanism to accomplish recoupling and verify recoupling by withdrawing the control rod, and:
 - a) Observing any indicated response of the nuclear instrumentation, and
 - b) Demonstrating that the control rod will not go to the overtravel position.
 2. If recoupling is not accomplished on the first attempt or, if not permitted by the RPCS, then until permitted by the RPCS, declare the control rod inoperable, insert the control rod, and disarm the associated directional control valves** either:
 - a) Electrically, or
 - b) Hydraulically by closing the drive water and exhaust water isolation valves.

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 5* with a withdrawn control rod not coupled to its associated drive mechanism, within 2 hours either:
 1. Insert the control rod to accomplish recoupling and verify recoupling by withdrawing the control rod and demonstrating that the control rod will not go to the overtravel position, or
 2. If recoupling is not accomplished, insert the control rod and disarm the associated directional control valves** either:
 - a) Electrically, or
 - b) Hydraulically by closing the drive water and exhaust water isolation valves.
- c. The provisions of Specification 3.0.4 are not applicable.

* At least each withdrawn control rod. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

** May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.

TABLE 3.3.7.9-1
FIRE DETECTION INSTRUMENTATION

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
	<u>HEAT</u> (X/Y)	<u>FLAME</u> ⁽¹⁾ (X/Y)	<u>SMOKE</u> ⁽¹⁾ (X/Y)
a. <u>CONTAINMENT BUILDING #</u>			
1. Return Duct Mounted Detectors			3/0
	<u>ROOM</u>	<u>ELEV</u>	<u>ROOM NAME</u>
b. <u>CONTROL BUILDING</u>			
1. Zone 1-3			12/0
	OC103	93'	Emergency Laundry Rm.
	OC109	93'	Decontamination Area
	OC115	93'	Corridor
	OC116	93'	Hot Machine Shop
	OC117	93'	Corridor
	OC128	93'	Hot Water Heater Rm.
2. Zone 1-4			6/0
	OC201	111'	Stairwell
	OC202	111'	Div. I Swgr. Rm.
	OC207	111'	Div. I Battery Rm.

* (X/Y): X - is number of Function A (early warning fire detection and notification only) instruments.
 Y - is number of Function B (actuation of fire suppression systems and early warning and notification) instruments.

The fire detection instruments located within the primary containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

(1) Smoke and flame detectors provide only early warning capability with the exception of:

- (a) Zone 1-27 detectors trip closed the door between the OC208/OC208A Remote Shutdown panel rooms.
- (b) Containment building return duct mounted detectors trip the containment cooler fans.
- (c) Zone 1-11 and 1-13 detectors initiate the control building purge fan system.
- (d) Control Room HVAC Intake Plenum Detectors trip the control room A/C units unless a control room emergency filtration system isolation mode automatic actuation signal is present.

TABLE 3.3.7.9-1 (Continued)
FIRE DETECTION INSTRUMENTATION

	ROOM	ELEV	ROOM NAME	MINIMUM INSTRUMENTS OPERABLE*		
				HEAT (X/Y)	FLAME ⁽¹⁾ (X/Y)	SMOKE ⁽¹⁾ (X/Y)
3.	Zone 1-5					3/0
	OC209	111'	Div. III Battery Rm.			
	OC210	111'	Div. III Swgr. Rm.	0/4(CO ₂)		
4.	Zone 1-6					7/0
	OC211	111'	Div. II Battery Rm.			
	OC215	111'	Div. II Swgr. Rm.	0/7(CO ₂)		
	OC216	111'	West Corridor			
5.	Zone 1-07					5/0
	OC212	111'	U-2 Div. I Battery Rm.			
	OC214	111'	U-2 Div. I Swgr. Rm.			
6.	Zone 1-08					5/0
	OC203	111'	U-2 Div. II Swgr. Rm.			
	OC206	111'	U-2 Div II Battery Rm.			
7.	Zone 1-10					2/0
	OC306	133'	Electrical Chase			
	OC307	133'	Electrical Chase			
8.	Zone 1-11					13/0
	OC302	133'	HVAC Equipment Rm.			
	OC308	133'	Corridor			
9.	Zone 1-12					2/0
	OC304	133'	Electrical Space			
	OC305	133'	Electrical Space			
	OC412	133'	Electrical Space			
10.	Zone 1-13					16/0
	OC303	133'	HVAC Equipment Rm.			
11.	Zone 1-14					9/0
	OC402A	148'	HVAC Chase			
	OC403	148'	Computer Room	0/12(Halon)		
	OC410	148'	Battery Room			
12.	Zone 1-15					15/0
	OC401	148'	Corridor			
	OC402	148'	Lower Cable Spreading Room	0/7(CO ₂)		
	OC407	148'	Instr. Motor Gen. Rm.	0/2(CO ₂)		
	OC408	148'	Corridor			
	OC409	148'	Electrical Chase			

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> (X/Y)	<u>FLAME</u> ⁽¹⁾ (X/Y)	<u>SMOKE</u> ⁽¹⁾ (X/Y)
13. Zone 1-16					13/0
OC405	148'	U-2 Lower Cable			
OC412	148'	Spreading Room			
		U-2 Electrical Space			
14. Zone 1-18					31/0
OC502	166'	U-2 Instr. Rack Area			
OC503	166'	Control Room			
OC504	166'	U-1 Instr. Rack Area			
OC516	166'	Electrical Space			
OC517	166'	Electrical Space			
15. Zone 1-19					9/0
OC506	166'	Shower and Drying Area			
OC507	166'	Aux. Instrument Shop			
OC509	166'	Corridor			
OC510	166'	Office			
OC511	166'	Dining Area			
OC512	166'	Kitchen			
OC514	166'	Locker Room			
OC515	166'	Corridor			
16. Zone 1-20					1/0
OC708A	189'	HVAC Chase			
17. Zone 1-21					2/0
OC518	166'	Electrical Chase			
OC611	177'	Electrical Chase			
18. Zone 1-22					16/0
OC601	177'	Viewing Gallery			
OC602	177'	Corridor No. 1			
OC603	177'	Emergency Dormitory			
OC604	177'	Computer Room			
OC605	177'	Janitor's Closet			
OC608	177'	Technical Support			
OC608B	177'	HVAC Chase			
OC613	177'	Corridor			
OC614	177'	Corridor			
OC616	177'	Storage Closet			
OC617	177'	Electrical Chase			
OC618	177'	Electrical Chase			
OC619	177'	Electrical Chase			
OC03	177'	Stair			

TABLE 3.3.7.9-1 (Continued)
FIRE DETECTION INSTRUMENTATION

ROOM	ELEV	ROOM NAME	MINIMUM INSTRUMENTS OPERABLE*		
			HEAT (X/Y)	FLAME ⁽¹⁾ (X/Y)	SMOKE ⁽¹⁾ (X/Y)
19. Zone 1-23					21/0
OC702	189'	Upper Cable Spreading Room	0/12(CO ₂)		
OC706	189'	West Corridor			
OC707	189'	Instr. Motor Gen. Rm.			
OC709	189'	Electrical Chase			
OC711	189'	Passage			
OC712	189'	HVAC Room			
20. Zone 1-24					6/0
OC703	189'	Control Cabinet Area	4/0 (CO ₂)		
21. Zone 1-26					16/0
OC705	189'	U-2 Upper Cable Spreading Room			
OC708	189'	U-2 Instr. Motor Gen. Rm.			
22. Zone 1-27					2/0
OC208	111'	Div. II Remote Shutdown Panel	0/1(CO ₂)		
OC208A	111'	Div. I Remote Shutdown Panel	0/1(CO ₂)		
23. Control Room HVAC Intake Plenum Mounted Detectors					2/0
c. <u>AUXILIARY BUILDING</u>					
1. Zone 2-2					23/0
1A211	119'	North Corridor (Partial)			
1A215	119'	South Corridor (Partial)			
1A222	119'	West Corridor			
2. Zone 2-3					5/0
1A219	119'	Electrical Swgr. Rm.	0/2(CO ₂)		
1A220	119'	Piping Penetration Room			
1A221	119'	Electrical Swgr. Rm.	0/2(CO ₂)		
3. Zone 2-4					22/0
1A102	93'	RHR "A" Heat Ex. Rm.			
1A103	93'	RHR "A" Pump Rm.			
1A104	93'	RCIC Pump Rm.			
1A105	93'	RHR "B" Pump Rm.			
1A106	93'	RHR "B" Heat Ex. Rm.			
1A128	108'	RHR "A" Heat Ex. Rm.			

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

5. Verifying that on an ECCS actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.
6. [DELETED]
7. Simulating a loss of offsite power in conjunction with an ECCS actuation test signal, and:
 - a) For Division 1 and 2:
 - 1) Verifying deenergization of the emergency busses and load shedding from the emergency busses.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.
 - b) For Division 3:
 - 1) Verifying de-energization of the emergency bus.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency bus with the permanently connected loads within 10 seconds and the autoconnected emergency loads within 20 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency bus shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.
8. Verifying that all automatic diesel generator trips are automatically bypassed upon an ECCS actuation signal except:
 - a) For Divisions 1 and 2, engine overspeed, generator differential current, and low lube oil pressure.
 - b) For Division 3, engine overspeed and generator differential current.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

9. Verifying the diesel generator operates for at least 24 hours. Diesel generators 11 and 12 shall be loaded to greater than or equal to 5450 kW but not to exceed 5740 kW for 24 hours. Diesel generator 13 shall be loaded to greater than or equal to 3630 kW for the first 2 hours of this test and to 3300 kW during the remaining 22 hours. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 1.2 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.d.7.a).2) and b).2)*.
10. Verifying that the auto-connected loads to each diesel generator do not exceed 5740 kW for diesel generators 11 and 12 and 3300 kW for diesel generator 13.
11. Verifying the diesel generator's capability to:
 - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its standby status.
12. Verifying that with the diesel generator operating in a test mode and connected to its bus that a simulated ECCS actuation signal:
 - a) For Divisions 1 and 2, overrides the test mode by returning the diesel generator to standby operation.
 - b) For Division 3, overrides the test mode by bypassing the diesel generator automatic trips per Surveillance Requirement 4.8.1.1.2.d.8.b).
13. [DELETED]
14. [DELETED]
15. Verifying that the automatic load sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval for diesel generators 11 and 12.

*If Surveillance Requirement 4.8.1.1.2.d.7.a)2) or b)2) are not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at the load specified by Surveillance Requirement 4.8.1.1.2.a.5 for one hour or until operating temperatures have stabilized.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

16. Verifying that the following diesel generator lockout features prevent diesel generator starting and/or trip the diesel generator only when required:
- a) Generator loss of excitation.
 - b) Generator reverse power.
 - c) High jacket water temperature.
 - d) Generator overcurrent with voltage restraint.
 - e) Bus underfrequency (11 and 12 only).
 - f) Engine bearing temperature high (11 and 12 only).
 - g) Low turbo charger oil pressure (11 and 12 only).
 - h) High vibration (11 and 12 only).
 - i) High lube oil temperature (11 and 12 only).
 - j) Low lube oil pressure (13 only).
 - k) High crankcase pressure.
 - l) Generator ground overcurrent (11 and 12 only).
- e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all three diesel generators simultaneously, during shutdown, and verifying that the three diesel generators accelerate to at least 441 rpm for diesel generators 11 and 12 and 882 rpm for diesel generator 13 in less than or equal to 10 seconds.
- f. At least once per 10 years by:
- 1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite or equivalent solution, and
 - 2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI, Article IWD-5000.

4.8.1.1.3 Reports - All diesel generator failures, valid or non-valid, shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 30 days. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. If the number of failures in the last 100 valid tests, on a per nuclear unit basis, is greater than or equal to 7, the report shall be supplemented to include the additional information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977.

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

<u>Number of Failures in Last 100 Valid Tests*</u>	<u>Test Frequency</u>
≤ 1	At least once per 31 days
2	At least once per 14 days
3	At least once per 7 days
≥ 4	At least once per 3 days

*Criteria for determining number of failures and number of valid test shall be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1, August 1977, where the last 100 tests are determined on a per nuclear unit basis. For the purposes of this test schedule, only valid tests conducted after the OL issuance date shall be included in the computation of the "last 100 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

TABLE 3.8.4.1-1

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>DEVICE NUMBER AND LOCATION</u>	<u>TRIP SETPOINT (Amperes)</u>	<u>RESPONSE TIME (Cycles)</u>	<u>SYSTEM/ COMPONENT AFFECTED</u>
a. <u>6.9 kV Circuit Breakers</u>			
252-1103-B	7200/45/± 10% [#]	60	Reactor Recir. Pump
252-1103-C	7200/45/± 10% [#]	60	B33C001A
252-1205-B	7200/45/± 10% [#]	60	Reactor Recir. Pump
252-1205-C	7200/45/± 10% [#]	60	B33C001B

b. 480 VAC Circuit Breakers

Stored Energy Type K600S with SS3G3 Tripping Device

<u>BREAKER NUMBER</u>	<u>TRIP SETPOINT (Amperes)</u>	<u>RESPONSE TIME (Seconds)</u>	<u>SYSTEM/COMPONENT AFFECTED</u>
52-12202	1200	0.07	CONTAINMENT COOLING FILTER TRAIN HEATERS (N1M41D002B-N)
52-12209	2000	0.07	CNTMT POLAR CRANE (Q1F13E001-N)
52-11502	1200	0.07	CNTMT CLG. FILTER TRAIN HEATER (N1M41D002A-N)
52-15105	2000	0.07	DRYWELL PURGE COMPRESS. (Q1E61C001A-A)
52-16204	2000	0.07	DRYWELL PURGE COMPRESS. (Q1E61C001B-B)
52-16404	1200	0.07	HYDROGEN RECOMBINER (Q1E61C003B-B)
52-15205	1200	0.07	HYDROGEN RECOMBINER (Q1E61C003A-A)

[#]Primary current/setpoint.

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

c. 480 VAC Circuit Breakers

Molded Case, Type NZM

BREAKER NUMBER	TRIP SETPOINT (Amperes)	RESPONSE TIME (Seconds)	SYSTEM/COMPONENT AFFECTED
52-1112-01	500	0.100	NEUTRON MON SYS DRIVE MECHANISM (1C51-J001A)
52-1112-02	500	0.100	NEUTRON MON SYS DRIVE MECHANISM (1C51-J001B)
52-1112-03	500	0.100	NEUTRON MON SYS DRIVE MECHANISM (1C51-J001C)
52-1112-04	500	0.100	NEUTRON MON SYS DRIVE MECHANISM (1C51-J001D)
52-1112-05	175	0.100	STEAM TUNNEL CLR INSIDE CTMT FAN (N1M41C004A-N)
52-1112-06	500	0.100	NEUTRON MON SYS DRIVE MECHANISM (1C51-J001E)
52-1112-07	1200	0.100	LIGHTING XFMR 1X105 (N1R18S105-D)
52-1112-10	1200	0.100	LIGHTING XFMR 1X109 (N1R18S109-D)
52-1112-14	500	0.100	REAC WATER SAMPLE STA FILTER TRAIN HEATER (N1M41-D006-N)
52-1112-15	320	0.100	RWCU BACKWASH TRANSFER PUMP (N1G36C004-N)
52-1112-18	24	0.100	PRECOAT TANK AGITATOR (N1G36D019-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
52-1112-20	90	0.100	RWCU FILTER DEMIN HOLDING PUMP (N1G36C001A-N)
52-1112-21	800	0.100	480 V RECEPTACLE
52-1112-22	5	0.100	MOV-STM TUNNEL COOLER INLET (N1P44F105A-N)
52-1112-24	32	0.100	MOV CLEANUP LINE RECIRC LOOP A (Q1G33F100-N)
52-1112-27	24	0.100	RESIN TANK AGITATOR (N1G36D020-N)
52-1112-28	38	0.100	MOV RWCU HEAT EXCHANGER BYPASS (N1G33F104-N)
52-1112-31	38	0.100	MOV RWCU HEAT EXCHANGER BYPASS (N1G33F044-N)
52-1112-36	500	0.100	REAC. RECIRC. PUMP SPACE HEATER (TB1B33C001A)
52-1112-37	800	0.100	480 V RECEPTACLE
52-1112-38	44	0.100	REAC WATER SAMPLE STA FILTER TRAIN FAN (N1M41-D006-N)
52-1112-41	6	0.100	REAC RECIRC SAMPLE PANEL ISOL MOV (N1B33F129)
52-1113-07	125	0.100	CNTMT FLOOR DRAIN SUMP PUMP (N1P45C019B-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
52-1113-21	60	0.100	DRYWELL EQUIP DRAIN SUMP PUMP (N1P45C002B-N)
52-1113-30	28	0.100	MOV RWCU HX OUTL ISOL VLV (N1G33F254-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
52-1113-44	800	0.100	480 V RECEPTACLE
52-1113-47	500	0.100	SPARE
52-1151-06	240	0.100	CNTMT COOLING FILTER TRAIN FAN (N1M41D002A-N)
52-1151-07	17.5	0.100	REAC. RECIRC. HPU OIL PUMP FAN (N1B33D003A3-N)
52-1151-10	600	0.100	REAC. RECIRC. HPU OIL PUMP (N1B33D003A1-N)
52-1151-12	75	0.100	MOV - RECIRC PUMP SUCTION (Q1B33F023A-N)
52-1151-19	75	0.100	MOV RECIRC PUMP DISCHARGE (Q1B33F067A-N)
52-1151-20	600	0.100	REAC. RECIRC. HPU OIL PUMP (N1B33D003A2-N)
52-1151-21	17.5	0.100	REAC. RECIRC. HPU OIL PUMP FAN (N1B33D003A4-N)
52-1151-22	60	0.100	DRYWELL CHEMICAL WASTE SUMP PUMP (N1P45C029-N)
52-1151-27	60	0.100	DRYWELL EQPT. DR. SUMP PUMP (N1P45C002A-N)
52-1151-28	125	0.100	CNTMT FLOOR DR. SUMP PUMP (N1P45C019A-N)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 6 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 12, 1985, Mississippi Power & Light Company (the licensee) proposed to change the facility Technical Specifications to implement; (1) a change in the Grand Gulf Unit 1 operating organization, (2) a design change in the ventilation system for a reactor water sample station inside containment (3) a change in the upper limit on the scram accumulator pressure setpoints (4) surveillance of fire detection instrumentation in additional fire protection zones in the control building, and (5) a design change to the diesel generator protective trip for ground overcurrent. The staff's evaluation of these changes is presented herein. By letter dated August 12, 1985, the licensee withdrew its request to amend License Condition 2.C.(2).

EVALUATION

Change (1) would change Section 6.0 "Administrative Controls" of the Technical Specifications. The proposed change takes the responsibilities of the Radiation Control Supervisor shown on Figure 6.2.2-1, Unit Organization, and divides these responsibilities between two new positions of Radiation Control Supervisor-Operations and Radiation Control Supervisor-Technical Support. The Radiation Control Supervisor, Operations would be responsible for radiological aspects of plant maintenance and operations activities. The Radiation Control Supervisor, Technical Support would be responsible for health physics support activities including dosimetry, radwaste, emergency planning, and radiation protection equipment. The staff finds this change acceptable because it does not delete any function currently reporting to the unit General Manager and meets the acceptance criteria of Section 13.1.2 of NUREG-0800 (the Standard Review Plan).

Change (2) the addition of circuit breakers in Table 3.8.4.1-1 "Primary Containment Penetration Conductor Overcurrent Protective Devices", is proposed as the result of a design change to decrease airborne radioactive contamination at a reactor water sample station inside containment. A heater and fan would be added to the ventilation system at the sample station to improve filter efficiency. Circuit breakers would be included in the electrical circuits for the fan and the heater as overcurrent protection for the conductors which penetrate the containment. In addition, a typographical error in Table 3.8.4.1-1 is corrected. Because the inclusion of the breakers is in accordance with NRC guidance ("Boiling Water Reactor-Standard Technical Specifications," NUREG-0123, Rev. 3), the staff finds the changes to be acceptable.

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Change (3) would change the upper limit on the setpoint for the low pressure alarm in Technical Specification 4.1.3.3 "Control Rod Scram Accumulators". The existing surveillance requirement for control rod scram accumulators in Technical Specification 4.1.3.3.b.1.b requires the performance of a channel calibration of the pressure detectors and verification of an alarm setpoint of $1520 + 30, -0$ psig on decreasing pressure. The licensee proposed to change the subject specification to read "Channel calibration of the pressure detectors, and verifying an alarm setpoint of greater than or equal to 1520 psig on decreasing pressure." As justification for the proposed change, the licensee states that most of these pressure switches have been found to drift to as-found setpoints higher than the allowable value of 1550 psig during their surveillance interval. The median drift was approximately 30-35 psi when comparing 173 data sheets for two calibrations. By letter dated September 26, 1985, the licensee provided us with a Service Information Letter from General Electric Company which states that this 30 psi band for the low pressure alarm setpoint may not always provide sufficient low side instrument drift margin for the installed pressure switches based on data from several BWRs. Therefore, General Electric recommends that the owners of plants with the $1520 + 30, -0$ psig requirements should take the necessary actions to amend their Technical Specifications to state that the low pressure alarms be set at greater than or equal to 1520 psig on decreasing pressure. Based on its review, the staff finds that any setpoint above 1520 psig is in the conservative direction as it will provide the intended indication on decreasing pressure. Therefore, proposed change (3) is acceptable.

Change (4) would add fire protection zones in the Unit 2 side of the control building to Technical Specification Table 3.3.7.9-1 "Fire Detection Instrumentation". The licensee discovered that certain Unit 1 safe-shutdown-related raceways pass through certain Unit 2 areas. The proposed change reflects the inclusion of the smoke detectors in these particular areas in the list of Unit 1 detectors which are subject to surveillance. The detectors associated with the actuation of carbon dioxide fire systems in some of these areas are not included. These CO₂ systems and the associated fire detectors are not required by our fire protection guidelines for the Unit 1 raceways because only one shutdown division exists in each area. Since change (4) lists detectors in accordance with NRC guidelines, the staff finds the proposed additional fire detection instrumentation in Table 3.3.7.9-1 to be acceptable.

Change (5) would delete the diesel generator ground overcurrent protective trip from Technical Specification Section 4.8.1.1.2.d.8.a which exempts certain protective trips from bypass during accident conditions. Change (5) would also add this ground overcurrent protective trip to Technical Specification Section 4.8.1.1.2.d.16 which identifies lockout features which are retained to prevent diesel generator damage during testing. Based on its review of the July 12, 1985, submittal, the staff finds these changes in compliance with the recommendations of Regulatory Guide 1.9 which requires all diesel generator protective trips other than engine overspeed and generator differential to be bypassed during accident conditions. Therefore, we find the proposed changes 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 change (2) would decrease occupational radiation exposure and the other changes do not affect personnel exposure. 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 34943) on August 28, 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: October 21, 1985

October 21, 1985

AMENDMENT NO. 6 TO FACILITY OPERATING LICENSE NO. NPF-29 - Grand Gulf, Unit 1

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