

SEP 20 1982

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

Dear Mr. McGaughy:

Subject: Amendment No. 3 to Facility Operating License No. NPF-13 -  
 Grand Gulf Nuclear Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 3 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 additional one time Technical Specification exceptions for Phase I operations and changes to the Technical Specifications. The changes to the Technical Specifications relate to Specifications Table 3.6.41, Valve E12-F0218 Stroke Time; 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance; Table 3.3.3-2, Containment Spray Initiation Time; and Table 3.8.4.1-1, Halted Case Circuit Breaker Response Time.

A copy of the related safety evaluation supporting Amendment No. 3 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. 3 to NPF-13
2. Safety Evaluation
3. Federal Register Notice

cc w/enclosures:

See next page

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| SURNAME | DHouston:pt | EHylton     | ASchwencer  | R. TRAWSON | TNovak    | DEisenhut |
| DATE    | 9/17/82     | 9/17/82     | 9/17/82     | 9/17/82    | 9/17/82   | 9/20/82   |

Grand Gulf

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

cc: Robert B. McGehee, Esquire  
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Jackson, Mississippi 39205

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Conner and Wetterhahn  
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Washington, D. C. 20006

Dr. D. C. Gibbs, Vice President  
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Mr. R. Trickovic, Project Engineer  
Grand Gulf Nuclear Station,  
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Office of the Attorney General  
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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. 3

1. The Nuclear Regulatory Commission (the Commission or the NRC) having 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. 3, 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.

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B. Change paragraph 2.C.(42) (f) and (g) to read as follows:

(f) Provided that the outboard MSIVs and the main steam shutoff valves are closed, the provisions of the following specifications may be suspended:

3.3.1, Table 3.3.1-1, Item 7; 3.3.2, Table 3.3.2-1, Item 2b; 3.3.7.1, Table 3.3.7.1-1, Items 3,4 and 5; 3.3.7.5, Table 3.3.7.5-1, Item 17; 3.4.7 and 3.6.1.4.

(g) The provisions of specification 3.3.7.10, 3.4.3.1.a and 3.7.3 may be suspended.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*[Handwritten signature]*

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

Date of Issuance: September 20, 1982

\* SEE ATTACHED PAGE FOR PREVIOUS CONCURRENCES

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| OFFICE  | DL:LB#2/PM* | DL:LB#2/LA* | DL:LB#2/BC* | OELD*   | DL:DL/... | DL:DTR    |  |
| SURNAME | DHouston:pt | EHylton     | ASchwencer  | RRawson | TNovak    | DEisenhut |  |
| DATE    | 9/17/82     | 9/17/82     | 9/17/82     | 9/17/82 | 9/17/82   | 9/20/82   |  |

3. Change paragraph 2.C.(42) (f) and (g) to read as follows:

(f) Provided that the outboard MSIVs and the main steam shutoff valves are closed, the provisions of the following specifications may be suspended:

3.3.1, Table 3.3.1-1, Item 7; 3.3.2, Table 3.3.2-1, Item 2b; 3.3.7.1, Table 3.3.7.1-1, Items 3,4 and 5; 3.3.7.5, Table 3.3.7.5-1, Item 17; 3.4.7 and 3.6.1.4.

(g) The provisions of specification 3.3.7.10, 3.4.3.1.a and 3.7.3 may be suspended.

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: September 17, 1982

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SAFETY EVALUATION  
 AMENDMENT NO. 3 TO NPF-13  
 GRAND GULF NUCLEAR STATION, UNIT 1  
 DOCKET NO. 50-415

Introduction

The licensee proposed a change to the operating license and changes to the Technical Specifications for Grand Gulf Unit 1 which are as follows:

- a) Incorporation of additional one time Technical Specification exceptions for Phase I operations (MP&L letter dated September 13, 1982).
- b) Changes to the following Technical Specifications (MP&L letter dated September 13, 1982):
  - (1) Table 3.6.4-1, Valve E12-F021B Stroke Time.
  - (2) 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance.
  - (3) Table 3.3.8-2, Containment Spray Initiation Time.
  - (4) Table 3.8.4.1-1, Molded Case Circuit Breaker Response Time.

Evaluation

a) One Time Technical Specification Exceptions

In the license, the staff granted certain one time exceptions from the Technical Specifications prior to exceeding 1.0 percent of rated thermal power for the first time. Since then, the licensee has identified other Technical Specifications for which they need an exception for Phase I operation. The bases for the requested exceptions are consistent with the rationale and justification used in the formulation of the original license condition. The requested exceptions are related to systems which will be isolated or non-functional during Phase I operation or to systems which monitor fission product inventory. At power levels less than 1.0 percent power, there will be a sufficiently low fission product inventory so that these associated systems will not be required. The staff has reviewed the nature of the requested exceptions and the bases for the requests and finds that a one time exception for Phase I operation is acceptable. Therefore, the additional exceptions from the Technical Specifications are granted.

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b) Technical Specification Changes

(1) Table 3.6.4.1, Valve E12-F021B Stroke Time

A design change to the containment and drywell isolation valve was made during plant construction to allow for throttling flow in the RHR "C" test line to the suppression pool. The design bases, as detailed in the NSSS supplier's design specification, is that the RHR system is not required to recover from secondary modes of operation, such as testing, within the specified LPCI injection time, because the interval of time the RHR system remains in these secondary modes is so short that the effect on overall reliability is insignificant. Therefore, the licensee has requested that the valve stroke time for valve E12-F021B be changed from 67 seconds to 101 seconds.

We have reviewed the licensee's request and the RHR system piping and instrumentation diagrams. Valve E12-F021B is the isolation valve in the RHR test return line to the suppression pool, and is normally closed. Its safety function is to close upon receipt of an ECCS initiation signal, (should it be open during a system test) to allow realignment of the RHR system for LPCI injection. There is only a very short time period during which the safety function of this valve could be required (i.e. a LOCA occurs during the RHR system test). Also, only one loop is tested at a time and hence 2 other LPCI loops as well as the LPCS and HPCS systems would be available for injection. Based upon our review, we find the proposed change to the Technical Specification acceptable.

(2) Table 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance

The licensee has requested a change in the low pressure alarm setpoints for the "Keep Filled" system in the ECCS discharge lines. The pressure alarms are indicative of voids or "not full" discharge lines. Full discharge lines are important in preventing water hammer events. The change in setpoints has been requested to reflect plant specific conditions at Grand Gulf.

We have reviewed the revised alarm setpoints proposed by the licensee, and the elevation differences between the measurement point and the system high point for the HPCS, LPCS, and LPCI systems. We conclude that the alarm setpoints are above the static head difference between the system high points and the measurement point. Based on our review, we find the proposed change to the Technical Specification acceptable.

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(3) Table 3.3.8-2, Containment Spray Initiation Time

The current Technical Specification for the containment spray timers require that the setpoint and allowable value be less than or equal to ten minutes. However, in Section 6.2.1.1.5.5 of the Final Safety Analysis Report for Grand Gulf, the containment sprays are assumed to be initiated no sooner than ten minutes following a LOCA and no later than thirteen minutes. The licensee has requested that the containment spray initiation time be changed consistent with the Final Safety Analysis Report and our previous safety review. We have reviewed the licensee's justification for this change and find the proposed Technical Specification change acceptable.

(4) Table 3.8.4.1-1, Molded Case Circuit Breaker Response Time

The licensee has requested an increase in the response time to 0.1 seconds for Type NZM circuit breakers. This change revises the fuse types used in the Grand Gulf design. For a worst-case condition, a limiting factor is the heating of a #1/0 penetration pigtail in 0.147 seconds to 250 C. Type NZM molded case circuit breakers will respond within the worst-case condition time limit. Based on NUREG-0588, "Equipment Qualification of Safety-Related Electrical Equipment", the thermal capability of this unit with this response time is within the allowable limits. Therefore, we find the proposed change to the Technical Specification 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: September 16, 1982

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TABLE 3.3.8-2

PLANT SYSTEMS ACTUATION INSTRUMENTATION SETPOINTS

| <u>TRIP FUNCTION</u>                                  | <u>TRIP SETPOINT</u>  | <u>ALLOWABLE VALUE</u>      |
|---|-----------------------|-----------------------------|
| 1. <u>CONTAINMENT SPRAY SYSTEM</u>                    |                       |                             |
| a. Drywell Pressure-High                              | $\leq 1.89$ psig      | $\leq 1.94$ psig            |
| b. Containment Pressure-High                          | $\leq 9$ psig         | $\leq 9.2$ psig             |
| c. Reactor Vessel Water Level-Low<br>Low Low, Level 1 | $\geq -150.3$ inches  | $\geq -152.5$ inches        |
| d. Timers   |                       |                             |
| 1) System A   | $10.3 \pm .1$ minutes | $10 \pm 1.7, -0$ minutes    |
| 2) System B   | $11.2 \pm .2$ minutes | $11.5 \pm .2, -1.5$ minutes |
| 2. <u>FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM</u>   |                       |                             |
| a. Reactor Vessel Water Level-High, Level 8           | $\leq 53.5$ inches*   | $\leq 55.7$ inches          |

\*See Bases Figure B 3/4 3-1.

TABLE 4.3.8.1-1

PLANT SYSTEMS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| <u>TRIP FUNCTION</u>                                    | <u>CHANNEL CHECK</u> | <u>CHANNEL FUNCTIONAL TEST</u> | <u>CHANNEL CALIBRATION</u> | <u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u> |
|---|----------------------|--------------------------------|----------------------------|--|
| 1. <u>CONTAINMENT SPRAY SYSTEM</u>                      |                      |                                |                            |  |
| a. Drywell Pressure-High                                | S                    | M                              | R                          | 1, 2, 3  |
| b. Containment Pressure-High                            | S                    | M                              | R                          | 1, 2, 3  |
| c. Reactor Vessel Water Level -<br>Low Low Low, Level 1 | S                    | M                              | R                          | 1, 2, 3  |
| d. Timers   | NA                   | M                              | Q                          | 1, 2, 3  |
| 2. <u>FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM</u>     |                      |                                |                            |  |
| a. Reactor Vessel Water Level-High,<br>Level 8          | S                    | M                              | R                          | 1  |

GRAND GULF-UNIT 1

3/4 3-100

## EMERGENCY CORE COOLING SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

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#### ACTION: (Continued)

- e. For ECCS divisions 1 and 2, provided that ECCS division 3 is OPERABLE and divisions 1 and 2 are otherwise OPERABLE:
  - 1. With one of the above required ADS valves inoperable, restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to  $\leq$  135 psig within the next 24 hours.
  - 2. With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to  $\leq$  135 psig within the next 24 hours.
- f. With an ECCS discharge line "keep filled" pressure alarm instrumentation channel inoperable, perform Surveillance Requirement 4.5.1.a.1 at least once per 24 hours.
- g. With an ECCS header delta P instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 72 hours or determine ECCS header delta P locally at least once per 12 hours; otherwise declare the associated ECCS inoperable.
- h. In the event an ECCS system is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

\*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.

## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.5.1 ECCS division 1, 2 and 3 shall be demonstrated OPERABLE by:

- a. At least once per 31 days for the LPCS, LPCI and HPCS systems:
  1. Verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water.
  2. Performance of a CHANNEL FUNCTIONAL TEST of the:
    - a) Discharge line "keep filled" pressure alarm instrumentation, and
    - b) Header delta P instrumentation.
  3. Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. Verifying that, when tested pursuant to Specification 4.0.5, each:
  1. LPCS pump develops a flow of at least 7115 gpm against a test line pressure greater than or equal to 128 psid.
  2. LPCI pump develops a flow of at least 7450 gpm against a test line pressure greater than or equal to 24 psid.
  3. HPCS pump develops a flow of at least 7115 gpm against a test line pressure greater than or equal to 200 psid.
- c. For the LPCS, LPCI and HPCS systems, at least once per 18 months:
  1. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.
  2. Performing a CHANNEL CALIBRATION of the:
    - a) Discharge line "keep filled" pressure alarm instrumentation and verifying the:
      - 1) High pressure setpoint of the:
        - (a) LPCS system to be 580 + 20, - 0 psig.
        - (b) LPCI subsystems to be 480 + 20, - 0 psig.

## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 2) Low pressure setpoint of the:
  - (a) LPCI A and B subsystem loop to be  $\geq 38$  psig.
  - (b) LPCI C subsystem loop and LPCS system to be  $\geq 22$  psig.
  - (c) HPCS system to be  $\geq 18$  psig.
- b) Header delta P instrumentation and verifying the setpoint of the HPCS system and LPCS system and LPCI subsystems to be  $1.2 \pm 0.1$  psid change from the normal indicated  $\Delta P$ .
3. Verifying that the suction for the HPCS system is automatically transferred from the condensate storage tank to the suppression pool on a condensate storage tank low water level signal and on a suppression pool high water level signal.
- d. For the ADS at least once per 18 months by:
  1. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.
  2. Manually opening each ADS valve when the reactor steam dome pressure is greater than or equal to 100 psig\* and observing that either:
    - a) The control valve or bypass valve position responds accordingly, or
    - b) There is a corresponding change in the measured steam flow.

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\* The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.

## EMERGENCY CORE COOLING SYSTEMS

### 3/4 5.2 ECCS - SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

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3.5.2 At least two of the following shall be OPERABLE:

- a. The low pressure core spray (LPCS) system with a flow path capable of taking suction from the suppression pool and transferring the water through the spray sparger to the reactor vessel.
- b. Low pressure coolant injection (LPCI) subsystem "A" of the RHR system with a flow path capable of taking suction from the suppression pool upon being manually realigned and transferring the water to the reactor vessel.
- c. Low pressure coolant injection (LPCI) subsystem "B" of the RHR system with a flow path capable of taking suction from the suppression pool upon being manually realigned and transferring the water to the reactor vessel.
- d. Low pressure coolant injection (LPCI) subsystem "C" of the RHR system with a flow path capable of taking suction from the suppression pool upon being manually realigned and transferring the water to the reactor vessel.
- e. The high pressure core spray (HPCS) system with a flow path capable of taking suction from one of the following water sources and transferring the water through the spray sparger to the reactor vessel:
  1. From the suppression pool, or
  2. When the suppression pool level is less than the limit or is drained, from the condensate storage tank containing at least 170,000 available gallons of water, equivalent to a level of 18 feet.

APPLICABILITY: OPERATIONAL CONDITION 4 and 5\*.

ACTION:

- a. With one of the above required subsystems/systems inoperable, restore at least two subsystems/systems to OPERABLE status within 4 hours or suspend all operations that have a potential for draining the reactor vessel.
- b. With both of the above required subsystems/systems inoperable, suspend CORE ALTERATIONS and all operations that have a potential for draining the reactor vessel. Restore at least one subsystem/system to OPERABLE status within 4 hours or establish SECONDARY CONTAINMENT INTEGRITY within the next 8 hours.

\* The ECCS is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded, the upper containment fuel pool gates are removed, the spent fuel pool gates are removed, and water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

TABLE 3.6.4-1  
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> |
|---|----------------------------------|-----------------------------------|---|
| <b>1. <u>Automatic Isolation Valves</u></b> |                                  |                                   |   |
| <b>a. <u>Containment</u></b>                |                                  |                                   |   |
| Main Steam Lines                            | B21-F028A 5(O)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F022A 5(I)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F067A-A 5(O)                 | 1                                 | 6                                       |
| Main Steam Lines                            | B21-F028B 6(O)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F022B 6(I)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F067B-A 6(O)                 | 1                                 | 6                                       |
| Main Steam Lines                            | B21-F028C 7(O)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F022C 7(I)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F067C-A 7(O)                 | 1                                 | 6                                       |
| Main Steam Lines                            | B21-F028D 8(O)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F022D 8(I)                   | 1                                 | 5                                       |
| Main Steam Lines                            | B21-F067D-A 8(O)                 | 1                                 | 6                                       |
| RHR Reactor Shutdown Cooling Suction        | E12-F008-A 14(O) <sup>(c)</sup>  | 3                                 | 40                                      |
| RHR Reactor Shutdown Cooling Suction        | E12-F009-B 14(I) <sup>(c)</sup>  | 3                                 | 40                                      |
| Steam Supply to RHR and RCIC Turbine        | E51-F063-B 17(I)                 | 4                                 | 20                                      |
| Steam Supply to RHR and RCIC Turbine        | E51-F064-A 17(O)                 | 4                                 | 20                                      |
| Steam Supply to RHR and RCIC Turbine        | E51-F076-B 17(I)                 | 4                                 | 20                                      |
| RCIC and RHR to Head Spray                  | E12-F023-B 18(O) <sup>(c)</sup>  | 3                                 | 90                                      |
| Main Steam Line Drains                      | B21-F019-A 19(O)                 | 1                                 | 15                                      |
| Main Steam Line Drains                      | B21-F016-B 19(I)                 | 1                                 | 15                                      |
| RHR Heat Exchanger "A" to LPCI              | E12-F042A-A 20(I) <sup>(c)</sup> | 5                                 | 22                                      |

- (a) See Specification 3.3.2, Table 3.3.2-1, for isolation signal(s) that operates each valve group.
- (b) Hydrostatically tested to ASME Section XI criteria.
- (c) Hydrostatically tested with water at  $P_a$ , 11.5 psig.
- (d) Hydrostatically tested by pressurizing<sup>a</sup> system to  $1.10 P_a$ , 12.65 psig.
- (e) Hydrostatically tested during system functional tests.
- (f) Hydrostatically sealed by feedwater leakage control system. Type C test not required.



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>    |                                  |                                   |   |
| RHR Heat Exchanger "A" to LPCI    | E12-F028A-A 20(I) <sup>(c)</sup> | 5                                 | 78                                      |
| RHR Heat Exchanger "A" to LPCI    | E12-F037A-A 20(I) <sup>(c)</sup> | 3                                 | 63                                      |
| RHR Heat Exchanger "B" to LPCI    | E12-F042B-B 21(I) <sup>(c)</sup> | 5                                 | 22                                      |
| RHR Heat Exchanger "B" to LPCI    | E12-F028B-B 21(I) <sup>(c)</sup> | 5                                 | 78                                      |
| RHR Heat Exchanger "B" to LPCI    | E12-F037B-B 21(I) <sup>(c)</sup> | 3                                 | 63                                      |
| RHR "A" Test Line to Supp. Pool   | E12-F024A-A 23(O) <sup>(d)</sup> | 5                                 | 93                                      |
| RHR "A" Test Line to Supp. Pool   | E12-F011A-A 23(O) <sup>(d)</sup> | 5                                 | 27                                      |
| RHR "A" Test Line to Supp. Pool   | E12-F290A-A 23(O) <sup>(d)</sup> | 6                                 | 8                                       |
| RHR "C" Test Line to Supp. Pool   | E12-F021B-B 24(O) <sup>(d)</sup> | 5                                 | 101                                     |
| HPCS Test Line                    | E22-F023-C 27(O)                 | 6                                 | 60                                      |
| RCIC Pump Suction                 | E51-F031-A 28(O)                 | 4                                 | 38                                      |
| RCIC Turbine Exhaust              | E51-F077-A 29(O) <sup>(c)</sup>  | 9                                 | 18                                      |
| LPCS Test Line                    | E21-F012-A 32(O)                 | 5                                 | 101                                     |
| Cont. Purge and Vent Air Supply   | M41-F011 34(O)                   | 7                                 | 4                                       |
| Cont. Purge and Vent Air Supply   | M41-F012 34(I)                   | 7                                 | 4                                       |
| Cont. Purge and and Vent Air Exh. | M41-F034 35(I)                   | 7                                 | 4                                       |
| Cont. Purge and and Vent Air Exh. | M41-F035 35(O)                   | 7                                 | 4                                       |
| Plant Service Water Return        | P44-F070-B 36(I)                 | 6                                 | 24                                      |
| Plant Service Water Return        | P44-F069-A 36(O)                 | 6                                 | 24                                      |
| Plant Service Water Supply        | P44-F053-A 37(O)                 | 6                                 | 24                                      |
| Chilled Water Supply              | P71-F150 38(O)                   | 6                                 | 30                                      |
| Chilled Water Return              | P71-F148 39(O)                   | 6                                 | 30                                      |

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

480 VAC Molded Case Circuit Breakers (Continued)

Type NZM (Continued)

| BREAKER NUMBER | TRIP SETPOINT (Amperes) | RESPONSE TIME (Seconds) | SYSTEM/COMPONENT AFFECTED                   |
|----------------|-------------------------|-------------------------|---|
| 52-1642-10     | 320                     | 0.018                   | DRYWELL COOLER FAN COIL UNIT (N1M51B006B-B) |
| 52-1642-14     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F056-B)    |
| 52-1642-15     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F058-B)    |
| 52-1642-16     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F060-B)    |
| 52-1642-17     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F062-B)    |
| 52-1642-18     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F064-B)    |
| 52-1642-19     | 12.5                    | 0.018                   | MOV - DRYWELL COOLER INLET (N1P44F066-B)    |
| 52-1642-21     | 24                      | 0.018                   | DRWL PURGE COMP AUX OIL PUMP (Q1E61C001B-B) |

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

480 VAC Molded Case Circuit Breakers (Continued)

3. Type MSCP

| BREAKER NUMBER | FUSE TYPE | SYSTEM/COMPONENT AFFECTED                                    |
|----------------|-----------|--|
| 52-12202       | MSCP-W    | CONTAINMENT COOLING<br>FILTER TRAIN HEATER<br>(N1M41D002B-N) |
| 52-12209       | MSCP-Y    | CONTAINMENT POLAR CRANE<br>(Q1F13E001-N)                     |
| 52-11502       | MSCP-W    | CONTAINMENT CLG FILTER<br>TRAIN HEATER<br>(N1M41D002A-N)     |
| 52-15105       | MSCP-Y    | DRYWELL PURGE COMPRESSOR<br>(Q1E61C001A-A)                   |
| 52-16204       | MSCP-Y    | DRYWELL PURGE COMPRESSOR<br>(Q1E61C001B-B)                   |
| 52-16404       | MSCP-W    | HYDROGEN RECOMBINER<br>(Q1E61C003B-B)                        |



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

SAFETY EVALUATION  
AMENDMENT NO. 3 TO NPF-13  
GRAND GULF NUCLEAR STATION, UNIT 1  
DOCKET NO. 50-416

Introduction

The licensee proposed a change to the operating license and changes to the Technical Specifications for Grand Gulf Unit 1 which are as follows:

- a) Incorporation of additional one time Technical Specification exceptions for Phase I operations (MP&L letter dated September 13, 1982).
- b) Changes to the following Technical Specifications (MP&L letter dated September 13, 1982):
  - (1) Table 3.6.4-1, Valve E12-F021B Stroke Time.
  - (2) 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance.
  - (3) Table 3.3.8-2, Containment Spray Initiation Time.
  - (4) Table 3.8.4.1-1, Molded Case Circuit Breaker Response Time.

Evaluation

a) One Time Technical Specification Exceptions

In the license, the staff granted certain one time exceptions from the Technical Specifications prior to exceeding 1.0 percent of rated thermal power for the first time. Since then, the licensee has identified other Technical Specifications for which they need an exception for Phase I operation. The bases for the requested exceptions are consistent with the rationale and justification used in the formulation of the original license condition. The requested exceptions are related to systems which will be isolated or non-functional during Phase I operation or to systems which monitor fission product inventory. At power levels less than 1.0 percent power, there will be a sufficiently low fission product inventory so that these associated systems will not be required. The staff has reviewed the nature of the requested exceptions and the bases for the requests and finds that a one time exception for Phase I operation is acceptable. Therefore, the additional exceptions from the Technical Specifications are granted.

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b) Technical Specification Changes

(1) Table 3.6.4.1, Valve E12-F021B Stroke Time

A design change to the containment and drywell isolation valve was made during plant construction to allow for throttling flow in the RHR "C" test line to the suppression pool. The design bases, as detailed in the NSSS supplier's design specification, is that the RHR system is not required to recover from secondary modes of operation, such as testing, within the specified LPCI injection time, because the interval of time the RHR system remains in these secondary modes is so short that the effect on overall reliability is insignificant. Therefore, the licensee has requested that the valve stroke time for valve E12-F021B be changed from 67 seconds to 101 seconds.

We have reviewed the licensee's request and the RHR system piping and instrumentation diagrams. Valve E12-F021B is the isolation valve in the RHR test return line to the suppression pool, and is normally closed. Its safety function is to close upon receipt of an ECCS initiation signal, (should it be open during a system test) to allow realignment of the RHR system for LPCI injection. There is only a very short time period during which the safety function of this valve could be required (i.e. a LOCA occurs during the RHR system test). Also, only one loop is tested at a time and hence 2 other LPCI loops as well as the LPCS and HPCS systems would be available for injection. Based upon our review, we find the proposed change to the Technical Specification acceptable.

(2) Table 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance

The licensee has requested a change in the low pressure alarm setpoints for the "Keep Filled" system in the ECCS discharge lines. The pressure alarms are indicative of voids or "not full" discharge lines. Full discharge lines are important in preventing water hammer events. The change in setpoints has been requested to reflect plant specific conditions at Grand Gulf.

We have reviewed the revised alarm setpoints proposed by the licensee, and the elevation differences between the measurement point and the system high point for the HPCS, LPCS, and LPCI systems. We conclude that the alarm setpoints are above the static head difference between the system high points and the measurement point. Based on our review, we find the proposed change to the Technical Specification acceptable.

(3) Table 3.3.8-2, Containment Spray Initiation Time

The current Technical Specification for the containment spray timers require that the setpoint and allowable value be less than or equal to ten minutes. However, in Section 6.2.1.1.5.5 of the Final Safety Analysis Report for Grand Gulf, the containment sprays are assumed to be initiated no sooner than ten minutes following a LOCA and no later than thirteen minutes. The licensee has requested that the containment spray initiation time be changed consistent with the Final Safety Analysis Report and our previous safety review. We have reviewed the licensee's justification for this change and find the proposed Technical Specification change acceptable.

(4) Table 3.8.4.1-1, Molded Case Circuit Breaker Response Time

The licensee has requested an increase in the response time to 0.1 seconds for Type NZM circuit breakers. This change revises the fuse types used in the Grand Gulf design. For a worst-case condition, a limiting factor is the heating of a #1/0 penetration pigtail in 0.147 seconds to 250 C. Type NZM molded case circuit breakers will respond within the worst-case condition time limit. Based on NUREG-0588, "Equipment Qualification of Safety-Related Electrical Equipment", the thermal capability of this unit with this response time is within the allowable limits. Therefore, we find the proposed change to the Technical Specification 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: September 16, 1982

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-415

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. 3 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 additional one time Technical Specification exceptions for Phase I operation, and changes to the Technical Specifications. The changes to the Technical Specifications relate to Specifications Table 3.5.4-1, Valve E12-F021B Stroke Time; 4.5.1.C.2.a, "Keep Filled" Pressure Alarm Surveillance; Table 3.3.8-2, Containment Spray Initiation Time; and Table 3.8.4.1-1, Molded Case Circuit Breaker Response Time. 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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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. 3 to License NPF-13 dated September 20, 1982; and (3) the Commission's evaluation dated September 16, 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 A. 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 September, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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

\* SEE ATTACHED PAGE FOR PREVIOUS CONCURRENCES

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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 15, 1982; (2) Amendment No. 3 to License NPF-13 dated September 17, 1982; and (3) the Commission's evaluation dated September 16, 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 17th day of September, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

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

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| DATE ▶    | 9/17/82     | 9/17/82    | 9/17/82    | 9/17/82              |  |  |