

Docket No. 50-416

March 9, 1992

Mr. William T. Cottle  
Vice President, Operations GGNS  
Entergy Operations, Inc.  
Post Office Box 756  
Port Gibson, Mississippi 39150

Dear Mr. Cottle:

SUBJECT: ISSUANCE OF AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE  
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. M81325)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 92 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TS) in response to your application dated August 13, 1991.

The amendment changes the time limit from 2 hours to 24 hours for operability testing of the remaining diesel generators if Diesel Generator 13 is inoperable.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

*151*

Paul W. O'Connor, Senior Project Manager  
Project Directorate IV-1  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 92 to NPF-29
- 2. Safety Evaluation

cc w/enclosures:  
See next page

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DATE	2/6/92	2/6/92	2/6/92	2/14/92	2/14/92	3/9/92

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

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Sincerely,

A handwritten signature in cursive script that reads "Paul W. O'Connor".

Paul W. O'Connor, Senior Project Manager  
Project Directorate IV-1  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 92 to NPF-29
2. Safety Evaluation

cc w/enclosures:  
See next page

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Grand Gulf Nuclear Station

Entergy Operations, Inc.

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

ENTERGY OPERATIONS, INC.

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

MISSISSIPPI POWER AND LIGHT COMPANY

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 92  
License No. NPF-29

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated August 13, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - 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 by 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 and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 92, are hereby incorporated into this license. Entergy Operations, Inc. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John T. Larkins, Director  
Project Directorate IV-1  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical Specifications

Date of Issuance: March 9, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 92

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

REMOVE PAGES

3/4 8-2

INSERT PAGES

3/4 8-2

## LIMITING CONDITION FOR OPERATION (Continued)

### ACTION (Continued)

- c. With one offsite circuit and diesel generator 11 or 12 of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generators, for one diesel generator at a time, by performing Surveillance Requirement 4.8.1.1.2.a.4\* within 8 hours. Restore at least one of the inoperable A.C. sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- d. With either diesel generator 11 or 12 of the above required A.C. electrical power sources inoperable, in addition to ACTION b or c, as applicable, verify within 2 hours that all required systems, subsystems, trains, components and devices that depend on the remaining OPERABLE diesel generator 11 or 12 as a source of emergency power are also OPERABLE; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- e. With both of the above required offsite circuits inoperable, demonstrate the OPERABILITY of the three required diesel generators, by performing Surveillance Requirement 4.8.1.1.2.a.4\* for one diesel generator at a time within 8 hours unless the diesel generators are already operating. Restore at least one of the above required offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- f. With diesel generators 11 and 12 of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore at least one of the inoperable diesel generators 11 or 12 to OPERABLE status within 2 hours and demonstrate the OPERABILITY of diesel generator 13 within the next 2 hours by performing Surveillance Requirement 4.8.1.1.2.a.4\* or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- g. With diesel generator 13 of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the offsite A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 for one diesel generator at a time within 24 hours. Restore diesel generator 13 to OPERABLE status within 72 hours or declare the HPCS system inoperable and take the ACTION required by Specification 3.5.1.

\*Specification 4.8.1.1.2.a.4 must be performed for diesel generator 13 only when the HPCS system is OPERABLE.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. NPF-29

ENERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated August 13, 1991, the licensee (Entergy Operations, Inc.) submitted a request for changes to the Grand Gulf Nuclear Station, Unit 1 Technical Specifications (TS). The amendment changes from 2 hours to 24 hours the time requirement for demonstrating the operability of the remaining diesel generators (DGs) when DG 13 is inoperable.

2.0 EVALUATION

With the loss of offsite AC power, the Diesel Generators (DGs) and their associated distribution supply power to safety-related equipment required for the safe shutdown of the facility and the mitigation and control of accident conditions within the facility. DG 13 provides emergency power for the High Pressure Core Spray system only. DGs 11 and 12 provide redundant power supplies for the remaining required safety systems.

In NUREG/CR-4550, Vol. 6, Rev. 1, Part 1 (Analysis of Core Damage Frequency: Grand Gulf, Unit 1, Internal Events), Table 5.4-1, certain events are ranked in accordance with their contributions to risk reduction. The risk reduction value for failure of DG 13 to start is cited as  $6.81E-7$ , whereas the comparable values for DGs 11 and 12 are  $4.85E-7$  and  $4.87E-7$  respectively. It is reasonable to conclude that the safety significance of the three DGs is comparable; however, the current time requirement for demonstrating operability of the remaining DGs is 24 hours when either DG 11 or 12 is inoperable, and 2 hours when DG 13 is inoperable. There is no basis for this disparity.

In Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," the staff concluded that excessive DG testing results in unnecessary mechanical stress and wear on the engines. The GL provides "Typical Technical Specifications" that contain a 24 hour requirement for demonstrating operability of remaining DGs when one is inoperable. In 1990, 10 of 12 DG starts at Grand Gulf would not have been necessary with a 24 hour requirement. In addition, 2 of the 10 DG starts were the result of unplanned events which shifted a significant portion of the licensee's readily



available resources to verifying the operability of the remaining DGs instead of returning DG 13 to an operable status. The maintenance history of DG 13 demonstrates that planned maintenance and unplanned simple repairs are normally completed within 24 hours.

This TS change will reduce the number of required DG engine starts not associated with normal surveillance requirements and will allow the licensee flexibility in application of its resources. The result will be greater DG availability and reliability. The staff concludes that changing the TS requirement from 2 hours to 24 hours provides a net benefit to safety and is acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Mississippi State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (56 FR 47236). 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.

### 5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Twigg

Date: March 9, 1992