



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 46 TO FACILITY OPERATING LICENSE NO. NPF-29

MISSISSIPPI POWER & LIGHT COMPANY

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated April 8, 1988, System Energy Resources, Inc. (the licensee), requested an amendment to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1 (GGNS Unit 1). Supplemental information regarding the safety analysis was submitted June 21, 1988, regarding the licensee's finding of no significant hazards considerations but did not modify the proposed TS changes. Accordingly, the Federal Register notice was not reissued.

The proposed amendment would change the TS by changing Table 4.8.1.1.2-1, "Diesel Generator Test Schedule," to:

- (1) Delete the criterion for using the diesel generator test interval of 14 days.
- (2) Change the criterion for using the 7 day test interval from greater than 2 diesel generator test failures in the last 100 valid tests to greater than 4 diesel generator test failures in the last 100 valid tests or greater than 1 diesel generator test failure in the last 20 valid tests.
- (3) Change the criterion for using the 31 day test interval from less than or equal to 1 diesel generator test failure in the last 100 valid tests to less than or equal to 4 diesel generator test failures in the last 100 valid tests or less than or equal to 1 diesel generator test failure in the last 20 valid tests.
- (4) Add a footnote to state that, if increased frequency testing is required due to exceeding one diesel generator test failure in the last 20 valid tests, then the increased test frequency shall be maintained until seven consecutive failure-free tests have been performed and the number of failures in the last 20 valid tests have been reduced to less than or equal to one.

- (5) Delete the portion of the present footnote that states only valid tests conducted after the Operating License issuance date of June 16, 1982 shall be used in the computation of the last 100 valid tests.

## 2.0 EVALUATION

The objective of diesel generator (DG) periodic testing is to ensure DG operability by timely failure detection and necessary corrective action. Such testing provides assurance of the availability of the diesel generator. Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," recommends more frequent testing as the number of test failures increases. The GGNS Unit 1 TS presently require that the DGs be tested in accordance with Regulatory Guide 1.108. The licensee's proposed changes would increase the allowable number of valid test failures, before test frequency would be increased, thus decreasing the reliability goal from the present value of 0.99 (1 failure in 100 tests) to 0.95 (1 failure in 20 tests). This lower reliability goal was found acceptable in Generic Letter 84-15, "Proposed Staff Action to Improve and Maintain Diesel Generator Reliability."

The first proposed change is to delete the diesel generator test interval of 14 days. The 14 day test interval is not necessary due to the additional testing required on a seven day interval if the valid failures exceed 1 in the last 20 valid starts. This change is in accordance with Generic Letter 84-15 and is, therefore, acceptable.

The second proposed change to Table 4.8.1.1.2-1 is to change the criterion for the 7 day test interval to greater than 4 DG failures in the last 100 valid tests or greater than 1 DG failure in the last 20 valid tests. The third proposed change is to change the criterion for the 31 day test interval to less than or equal to 4 DG failures in the last 100 valid tests and less than or equal to 1 DG failure in the last 20 valid tests. These proposed TS changes are in accordance with Generic Letter 84-15 (which includes the 20 valid test criteria based on a reliability goal of 0.95), are consistent with the changes approved on other recently licensed plants and are, therefore, acceptable.

The fourth proposed change is to add a footnote to the 7 day test frequency for greater than 1 DG failure in the last 20 valid tests. The footnote requires that the associated test frequency shall be maintained until seven consecutive failure free tests have been performed and the number of failures in the last 20 valid demands has been reduced to less than or equal to one. This change is in accordance with Generic Letter 84-15 and is, therefore, acceptable.

The fifth proposed change is to delete the statement in the present footnote regarding computation of the last 100 valid tests. Each diesel generator now has over 100 valid tests since the Operating License was issued. Because the reference in the footnote is no longer necessary, its deletion is acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on . Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant impact on the quality of the human environment.

### 4.0 CONCLUSION

The Commission has issued a Notice of Consideration of Issuance of Amendment to Facility Operating License and Opportunity for Hearing which was published in the Federal Register (53 FR 15609) on May 2, 1988. No petition to intervene or request for hearing has been filed on this action.

The staff 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, and (2) 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 nor to the health and safety of the public.

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Dated: August 1, 1988