Docket No. 50-416 April 4, 1994

Mr. C. Randy Hutchinson
Vice President, Operations GGNS
Entergy Operations, Inc.
Post Office Box 756
Port Gibson, Mississippi 39150

Dear Mr. Hutchinson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. M88671)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 113 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TSs) in response to your application dated January 13, 1994.

The amendment requests the removal of the temporary TS limit on the number of spent fuel assemblies that may be stored in the spent fuel pool at Grand Gulf Nuclear Station pending licensee verification of the adequacy of the spent fuel pool heat removal capability.

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,

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

Enclosures:
1. Amendment No. 113 to NPF-29
2. Safety Evaluation

cc w/enclosures:
See next page

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Docket File	NRC/Local PDR	PD4-1 Reading	P. O'Connor
E. Adensam	OPA (2G5)	OC/LFMB (4503)	J. Roe (13A2)
P. Noonan (2)	OGC (15B18)	D. Hagan (3206)	T. Gody, Jr. (13E21)
G. Hill (2)	C. Grimes (11E22)	D. Pickett (13H15)	D. Verrelli, RII
ACRS (10)	R. Hall (13E21)	W. Beckner	

OFC	LA:PD4-1	PM:PD4-1 PWOC	OGC	D:PD4-1
NAME	PNoonan	PO'Connor/bc	APII	WBeckner WOB
DATE	3/15/94	3/16/94	3/21/94	3/13/94 4/4/94
COPY	YES/NO	YES/NO	YES/NO	YES/NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Paul W. O'Connor

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Office of Nuclear Reactor Regulation

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See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 113
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 January 13, 1994, 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. , 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

William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the
Technical Specifications

Date of Issuance: April 4, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 113

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 vertical lines indicating the area of change.

REMOVE PAGE	INSERT PAGE
5-6	5-6

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1.2-1.

5.6 FUEL STORAGE

CRITICALITY

5.6.1 The spent fuel storage racks are designed and shall be maintained with:

a. A k_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water, including all calculational uncertainties and biases as described in Section 9.1 of the FSAR.

b. A nominal 6.26-inch center-to-center distance between fuel assemblies placed in the storage racks.

5.6.1.2 The k_{eff} for new fuel for the first core loading stored dry in the spent fuel storage racks shall not exceed 0.98 when aqueous foam moderation is assumed.

DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 202'5 1/4".

CAPACITY

5.6.3 The spent fuel storage capacity is designed and shall be maintained with a storage capacity limited to: 4348

a. No more than ~~2324*~~ spent fuel assemblies in the spent fuel pool, and

b. No more than 800 spent fuel assemblies in the upper containment pool.

Placement of fuel in the upper containment pool is limited to temporary storage of fuel during refueling operations. Prior to return to reactor criticality, all spent fuel shall be removed from the upper containment pool.

5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7.1-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7.1-1. Delet

*The physical limit is 4348. The 2324 limit reflects the number of spent fuel assemblies that can be stored in the spent fuel pool without excessive reliance on RHR supplement cooling; i.e., for a time period in excess of a normal refueling duration.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. NPF-29

ENTERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated January 13, 1994, the licensee (Entergy Operations, Inc., or EOI), submitted a request for changes to the Grand Gulf Nuclear Station, Unit 1 (GGNS) Technical Specifications (TSs). The submittal requests the removal of the temporary TS limit on the number of spent fuel assemblies that may be stored in the spent fuel pool at Grand Gulf Nuclear Station pending licensee verification of the adequacy of the spent fuel pool heat removal capability.

2.0 BACKGROUND

By letter dated August 18, 1986, the NRC staff issued Amendment No. 17 to the Grand Gulf Nuclear Station Operating License No. NPF-29. The amendment authorized the use of high density spent fuel pool storage racks. However, the staff limited the use of the high density racks to 2324 spent fuel assemblies out of the available 4348 storage locations until the licensee proposed an acceptable spent fuel pool cooling analysis that would provide adequate heat removal capability for the increased heat loads that could be generated by a completely filled spent fuel pool under postulated system failures.

3.0 EVALUATION

By letter dated November 1, 1991, Entergy Operations Inc. provided the staff with a proposed engineering solution that would provide sufficient spent fuel pool cooling capacity for a spent fuel pool filled with 4348 fuel assemblies including a full core discharge of 800 fuel assemblies.

The staff reviewed the licensee's November 1, 1991, submittal and by letter dated July 30, 1992, concluded that EOI's proposed method, i.e., use of two heat exchangers (Hx) with one fuel pool cooling and cleanup (FPCC) pump, was acceptable as a conceptual means of cooling the completely filled spent fuel pool (with 4348 fuel assemblies) and maintaining the bulk coolant temperature at or below 140°F in accordance with the licensee's calculations.

However, since an FPCC pump is usually used to pump 1100 gpm to one heat exchanger and would now have to pump 800 gpm to each Hx, the staff required that these flow rates be verified by the licensee. In addition, while each standby service water (SSW) pump is rated at 12000 gpm, the licensee was also required to verify that the extra burden of 1254 gpm to a second Hx is within the capability of one SSW pump while maintaining the remaining necessary flow rates.

By letter dated November 8, 1993, the licensee documented the successful verification of the required flow rates in the fuel pool cooling and cleanup system and on January 14, 1994, the NRC staff documented its acceptance of EOIs testing and implementation of the spent fuel pool cooling system.

Based upon the above evaluation of the acceptability of the Grand Gulf spent fuel pool cooling system the staff concludes that it is acceptable to remove the interim limit of 2324 spent fuel assemblies and replace it with a limit of 4348 spent fuel assemblies.

4.0 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.

5.0 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 (59 FR 10006). 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.

6.0 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: Paul W. O'Connor

Date: **April 4, 1994**