

May 24, 2001

Mr. William A. Eaton  
Vice President, Operations GGNS  
Entergy Operations, Inc.  
P. O. Box 756  
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 - ISSUANCE OF AMENDMENT  
RE: REVISION OF TECHNICAL SPECIFICATIONS FOR MINIMUM USABLE  
VOLUMES FOR THE DIESEL GENERATOR FUEL OIL STORAGE TANKS  
(TAC NO. MA8099)

Dear Mr. Eaton:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 147 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station (GGNS), Unit 1. This amendment revises the Technical Specifications (TSs) in response to your application dated January 24, 2000. The amendment increases the specified minimum fuel oil inventories maintained in the fuel oil storage tanks for the Division 1, 2, and 3 diesel generators.

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

Sincerely,

**/RA/**

S. Patrick Sekerak, Project Manager, Section 1  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures: 1. Amendment No. 147 to NPF-29  
2. Safety Evaluation

cc w/encls: See next page

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The Nuclear Regulatory Commission has issued the enclosed Amendment No. 147 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 24, 2001. The proposed TS change would modify the minimum fuel oil inventories maintained in the fuel oil storage tanks for Division 1, 2, and 3 diesel generators.

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Sincerely,

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S. Patrick Sekerak, Project Manager, Section 1  
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\*\*No legal objection \*SPLB SER used with minor changes

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ENTERGY OPERATIONS, INC.  
SYSTEM ENERGY RESOURCES, INC.  
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION  
ENTERGY MISSISSIPPI, INC.  
DOCKET NO. 50-416  
GRAND GULF NUCLEAR STATION, UNIT 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 147  
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 24, 2000, 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. 147, 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 and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

***/RA/***

Robert A. Gramm, Chief, Section 1  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: May 24, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 147

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

3.8-22  
3.8-24

Insert

3.8-22  
3.8-24

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 147 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 24, 2000, Entergy Operations, Inc. (the licensee) requested changes to the Technical Specifications (TSs) for the Grand Gulf Nuclear Station (GGNS), Unit 1. The proposed TS change would modify the minimum fuel oil inventories maintained in the fuel oil storage tanks for the Division 1, 2, and 3 diesel generators. Currently, TS 3.8.3 requires a minimum usable fuel oil volume of 62,000 gallons to be maintained for the Division 1 and 2 diesel generators, and 41,200 gallons for the Division 3 diesel generator. The licensee proposed to change these fuel oil volumes to 68,744 gallons for the Division 1 and 2 diesel generators, and 44,616 gallons for the Division 3 diesel generator. The following TS Limiting Conditions for Operation (LCO), Surveillance Requirements (SRs), and their associated Bases are affected by the TS changes:

- LCO 3.8.3 Condition A.1, on Page 3.8-22
- LCO 3.8.3 Condition A.2, on Page 3.8-22
- SR 3.8.3.1.a, on Page 3.8-24
- SR 3.8.3.1.b, on Page 3.8-24

2.0 BACKGROUND

The current TS requirements on minimum fuel oil inventory are based on previous calculations that concluded a minimum volume of 61,914 gallons was needed for the Division 1 and 2 diesel generators, and 41,158 gallons for the Division 3 diesel generator. The licensee assumed these fuel oil inventories based on limited operation of Emergency Core Cooling System pumps during the first seven days following a loss of coolant accident (LOCA). Recently, the licensee re-calculated the minimum fuel oil inventories for the diesel generator fuel oil storage tanks using the TS surveillance testing capacities of 5,740 Kilo-Watts (KW) for the Division 1 and 2 diesel generators rather than the lower post-LOCA load profiles previously assumed. The licensee also re-calculated the fuel oil required for the Division 3 diesel generator using the nameplate rating of 3,300 KW. The results of the calculations indicate that the required usable fuel oil in the fuel oil storage tanks is greater than that required by current TSs. Based on these revised calculations, each fuel oil storage tank will be filled to its maximum capacity, as near the

top of the tank as practical. Accordingly, the licensee requested a change to the operating license to increase the amount of diesel fuel oil to be kept in the storage tanks.

### 3.0 EVALUATION

#### 3.1 Regulatory Requirements

General Design Criterion (GDC) 17, "Electric Power Systems," of Appendix A to 10 CFR Part 50 requires that an onsite electric power system and an offsite electric power system be provided to permit functioning of structures, systems, and components important to safety. In addition, GDC 17 contains requirements concerning system capacity, capability, independence, redundancy, availability, testability, and reliability. The onsite standby (alternating current (ac)) power system, powered by the diesel generators, supplies power to selected loads in the event of a loss of normal ac power supplies. The availability and reliability of the diesel generators is a major factor in ensuring acceptable plant safety.

#### 3.2 TS Changes Proposed for GGNS

At GGNS, the fuel oil storage tanks are required to supply sufficient fuel oil to the diesel generators for their proper operation for a duration of seven days following a LOCA. The proposed TS change would require additional fuel oil to be stored in the Division 1, 2, and 3 diesel generator fuel oil storage tanks, as was determined by the licensee's updated calculations. Section 5.4, "Calculation of Fuel Oil Storage Requirements," of the American National Standards Institute (ANSI) N195-1976, "Fuel Oil Systems for Standby Diesel-Generators," states that fuel oil calculations shall be based on the assumption that the diesel generator operates continuously for seven days at its rated capacity, or under the time-dependent loads of the diesel generator. The licensee stated that the calculation is based on the diesel generator operation at the TS surveillance testing capacity (fully rated capacity) for the Division 1 and 2 diesel generators, and at the nameplate rated capacity for the Division 3 diesel generator. Therefore, the calculation conforms to the ANSI N195-1976 Standard.

The staff has completed its review of the licensee's submittal and finds that the TS change will ensure the capability of the diesel generators to perform their safety function with the revised capacities specified for usable fuel. Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators," describes the method for complying with the Nuclear Regulatory Commission (NRC or the Commission) regulations. The ANSI N195-1976 Standard provides a method acceptable to the staff for complying with the pertinent requirements of GDC 17. Therefore, the staff concludes that the proposed change to the fuel volumes in the diesel generator fuel oil storage tanks meets the intent of GDC 17, and is acceptable.

#### 3.3 Evaluation Conclusions

On the basis of its review, the staff concludes that the licensee-proposed TS change is acceptable. The bases for the staff's acceptance are that:

- The proposed change is justified by the licensee on the basis of technical information reviewed by the staff
- The proposed change would improve the diesel generator availability and capability
- The proposed change meets the intent of GDC 17

Therefore, the staff concludes that the proposed TS amendment is acceptable.

#### 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 (65 FR 15381, published March 22, 2000). 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: J.S. Guo

Date: May 24, 2001



Grand Gulf Nuclear Station

cc:

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