

August 12, 1991

Docket No. 50-416

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. 81 TO FACILITY OPERATING LICENSE
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1, REGARDING
REACTOR VESSEL MATERIAL SPECIMENS (TAC NO. 79989)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment consists of changes to the Technical Specifications (TS) in response to your application dated March 15, 1991, as revised May 24, 1991.

The amendment changes the TS by deleting the schedule for withdrawal from the reactor of the reactor pressure vessel material surveillance specimens and references to the schedule in a surveillance requirement.

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
Lester L. Kintner, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 81 to NPF-29
- 2. Safety Evaluation

cc w/enclosures:
See next page

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

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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,

A handwritten signature in cursive script that reads "L L Kintner".

Lester L. Kintner, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 81 to NPF-29
2. Safety Evaluation

cc w/enclosures:
See next page

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Grand Gulf Nuclear Station

cc:

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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. 81
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 March 15, 1991, as revised May 24, 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.81 , 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



Theodore R. Quay, Director
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 12, 1991

ATTACHMENT TO LICENSE AMENDMENT NO.

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also included to maintain document completeness.

REMOVE PAGES

3/4 4-20
3/4 4-22

INSERT PAGES

3/4 4-20
3/4 4-22

REACTOR COOLANT SYSTEM

3/4.4.6 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION

3.4.6.1 The reactor coolant system pressure and reactor vessel metal temperature shall be limited in accordance with the limit lines shown on Figure 3.4.6.1-1 (1) curve A for hydrostatic or leak testing; (2) curve B for heatup by non-nuclear means, cooldown following a nuclear shutdown and low power PHYSICS TESTS; and (3) curve C for operations with a critical core other than low power PHYSICS TESTS, with:

- a. A maximum reactor coolant heatup of 100°F in any one hour period,
- b. A maximum reactor coolant cooldown of 100°F in any one hour period,
- c. A maximum temperature change of less than or equal to 10°F in any one hour period during inservice hydrostatic and leak testing operations above the heatup and cooldown limit curves, and
- d. The reactor vessel flange and head flange temperature greater than or equal to 70°F when reactor vessel head bolting studs are under tension.

APPLICABILITY: At all times.

ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the reactor coolant system; determine that the reactor coolant system remains acceptable for continued operations or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.1.1 During system heatup, cooldown and inservice leak and hydrostatic testing operations, the reactor coolant system temperature and pressure shall be determined to be within the above required heatup and cooldown limits and the reactor coolant system pressure and reactor vessel metal temperature shall be determined to be to the right of the limit lines of Figure 3.4.6.1-1 curves A or B, as applicable, at least once per 30 minutes.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.6.1.2 The reactor coolant system pressure and reactor vessel metal temperature shall be determined to be to the right of the criticality limit line of Figure 3.4.6.1-1 curve C within 15 minutes prior to the withdrawal of control rods to bring the reactor to criticality and at least once per 30 minutes during system heatup.

4.4.6.1.3 The reactor vessel flange and head flange temperature shall be verified to be greater than or equal to 70°F:

- a. In OPERATIONAL CONDITION 4 when reactor coolant system temperature is:
 1. $\leq 100^{\circ}\text{F}$, at least once per 12 hours.
 2. $\leq 80^{\circ}\text{F}$, at least once per 30 minutes.
- b. Within 30 minutes prior to and at least once per 30 minutes during tensioning of the reactor vessel head bolting studs.

4.4.6.1.4 The reactor vessel material specimens shall be removed and examined to determine changes in material properties as required by 10 CFR 50, Appendix H.

4.4.6.1.5 The pressure-temperature limit curves in Figure 3.4.6.1-1 are valid through 10 effective full power years (EFPY) and shall be re-evaluated prior to exceeding 10EFPY.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.6.1.2 The reactor coolant system pressure and reactor vessel metal temperature shall be determined to be to the right of the criticality limit line of Figure 3.4.6.1-1 curve C within 15 minutes prior to the withdrawal of control rods to bring the reactor to criticality and at least once per 30 minutes during system heatup.

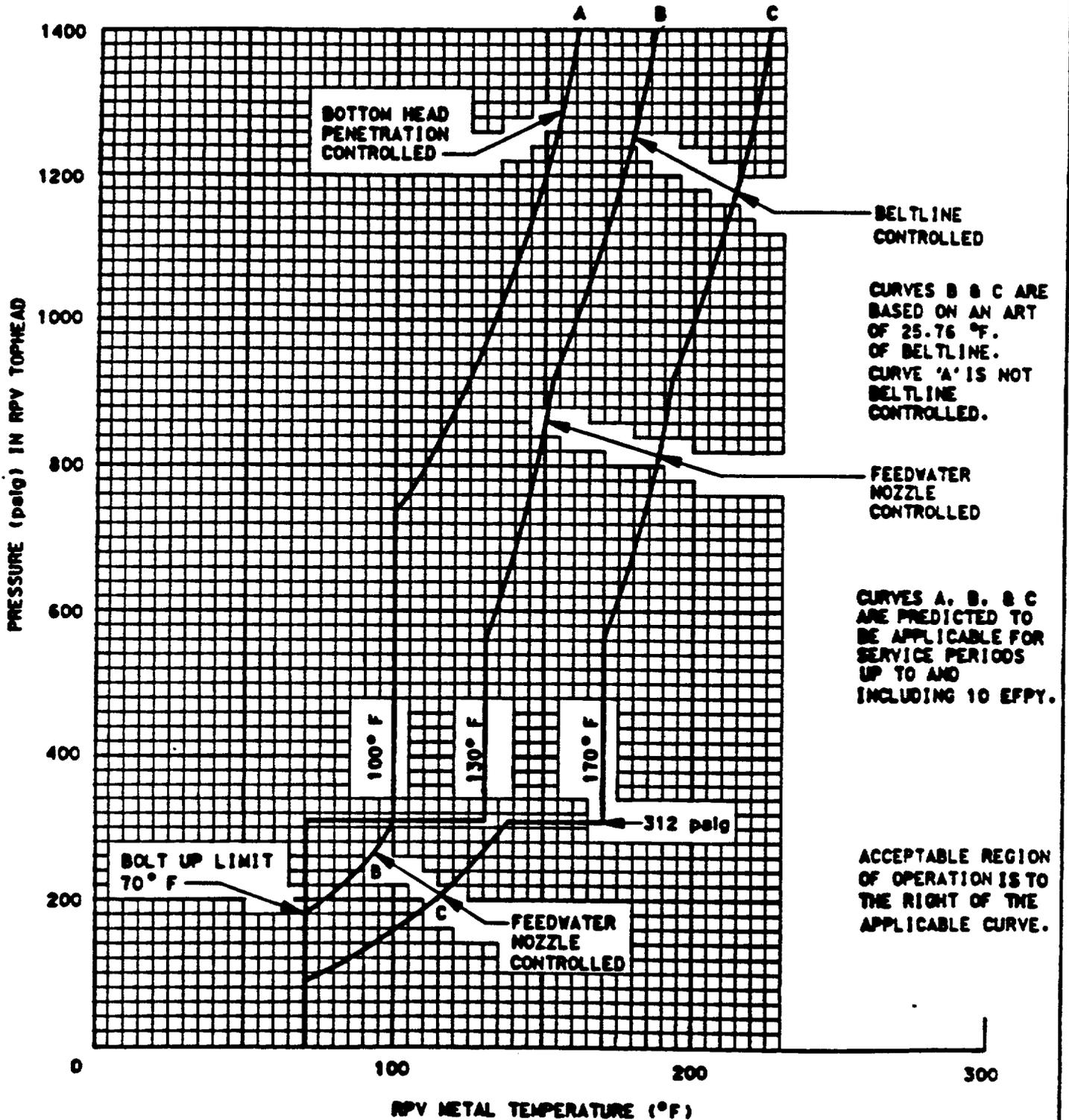
4.4.6.1.3 The reactor vessel flange and head flange temperature shall be verified to be greater than or equal to 70°F:

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4.4.6.1.4 The reactor vessel material specimens shall be removed and examined to determine changes in material properties as required by 10 CFR 50, Appendix H.

4.4.6.1.5 The pressure-temperature limit curves in Figure 3.4.6.1-1 are valid through 10 effective full power years (EFPY) and shall be re-evaluated prior to exceeding 10EFPY.

- A - INSERVICE LEAK AND HYDROTEST
- B - NON-NUCLEAR HEAT UP & COOLDOWN LIMIT
- C - NUCLEAR (CORE CRITICAL) HEAT UP & COOLDOWN LIMIT



MINIMUM REACTOR VESSEL METAL TEMPERATURE VS. REACTOR VESSEL PRESSURE

FIGURE 3.4.6.1-1

TABLE 4.4.6.1.3-1 HAS BEEN DELETED.

TABLE 4.4.6.1.3-1 HAS BEEN DELETED.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 81 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 March 15, 1991, as revised May 24, 1991, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Grand Gulf Nuclear Station Unit 1, Technical Specifications (TS). The requested changes would change the TS by deleting the schedule for withdrawal from the reactor of the reactor pressure vessel material surveillance specimens and reference to the schedule in a surveillance requirement.

2.0 EVALUATION

The purpose of the reactor vessel material surveillance specimens is to monitor radiation-induced changes in reactor vessel materials properties. The surveillance specimens are contained in capsules which are located inside the vessel and are periodically withdrawn for examination. The withdrawal intervals should be scheduled based on American Society for Testing Materials (ASTM) Standard E 185 to allow the specimens to achieve sufficient radiation-induced changes in the reactor vessel materials to permit prediction of radiation embrittlement of the reactor vessel.

The requirement for the withdrawal schedule of the surveillance capsules is addressed in both Appendix H to 10 CFR Part 50 and the TS. To eliminate the redundant requirement, the staff issued a Generic Letter 91-01 on January 4, 1991, to provide guidance on removal of the withdrawal schedule from the TS. The staff believes that the removal of the withdrawal schedule from the TS will not result in any loss of regulatory control because changes to the schedule are controlled by the requirements of Appendix H to 10 CFR Part 50. Section II.B.3 of Appendix H requires that proposed changes to the schedule with a technical justification be submitted to the Nuclear Regulatory Commission (NRC) for approval prior to implementation.

The proposed license amendment would delete TS Table 4.4.6.1.3-1, "Reactor Vessel Material Surveillance Program-Withdrawal Schedule" and change TS Surveillance Requirement 4.4.6.1.4 by deleting a reference to the table. In its submittals, the licensee has committed to incorporate the schedule in

TS Table 4.4.6.1.3-1 into the next revision of the Updated Final Safety Analysis Report (UFSAR) and to obtain NRC approval of any changes to the schedule prior to revision of the schedule in the UFSAR.

Based on its review of the submittals, the staff concludes that the proposed TS changes and commitments to maintain the NRC-approved version of the withdrawal schedule in the UFSAR are in accordance with Generic Letter 91-01 and Appendix H to 10 CFR Part 50, and are therefore 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 and changes the surveillance requirements. 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 31433). 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: J. Tsao, EMCB/NRR

Date: August 12, 1991