

February 15, 1989

Docket No. 50-416

DISTRIBUTION  
See attached sheet

Mr. W. T. Cottle  
Vice President, Nuclear Operations  
System Energy Resources, Inc.  
Post Office Box 23054  
Jackson, Mississippi 39205

Dear Mr. Cottle:

SUBJECT: ISSUANCE OF AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE  
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1, REGARDING  
REFUELING PLATFORM HOIST DOWNTRAVEL CUTOFF SETPOINT  
(TAC NO. 69185)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 55 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 August 19, 1988, as supplemented October 10, 1988.

The amendment changes the downtravel power cutoff setpoint for the refueling platform hoist in TS 3/4.9.6, "Refueling Equipment."

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

*151*

Lester L. Kintner, Senior Project Manager  
Project Directorate II-1  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 55 to NPF-29
- 2. Safety Evaluation

cc w/enclosures:  
See next page

*See changes in SER. Please make AOTZ*

*AGG*

*DFol '11*

*CP/*

OFC	: LA: PD2N	: DRPR: PM: PD21	: DRPR: BC: SPLB	: DEST: D: PD2Y	: DRPR :	:	:
NAME	: PAAnderson	: LKintner:	: JCraig	: ERedes	:	:	:
DATE	: 01/30/89	: 01/30/89	: 01/02/89	: 02/14/89	: 2/06/89	:	:

OFFICIAL RECORD COPY

8902230509 890215  
PDR ADOCK 05000416  
P PDC

Mr. W. T. Cottle  
System Energy Resources, Inc.

Grand Gulf Nuclear Station (GGNS)

cc:

Mr. T. H. Cloninger  
Vice President, Nuclear Engineering  
and Support  
System Energy Resources, Inc.  
P. O. Box 23054  
Jackson, Mississippi 39205

Mr. C. R. Hutchinson  
GGNS General Manager  
System Energy Resources, Inc.  
Post Office Box 756  
Port Gibson, Mississippi 39150

Robert B. McGehee, Esquire  
Wise, Carter, Child, Steen and  
Caraway  
P. O. Box 651  
Jackson, Mississippi 39205

The Honorable William J. Guste, Jr.  
Attorney General  
Department of Justice  
State of Louisiana  
Baton Rouge, Louisiana 70804

Nicholas S. Reynolds, Esquire  
Bishop, Liberman, Cook, Purcell  
and Reynolds  
1400 L Street, N.W.  
Washington, D.C. 20005-3502

Office of the Governor  
State of Mississippi  
Jackson, Mississippi 39201

Mr. Ralph T. Lally  
Manager of Quality Assurance  
Middle South Utilities System  
Services, Inc.  
639 Loyola Avenue, 3rd Floor  
New Orleans, Louisiana 70113

Attorney General  
Gartin Building  
Jackson, Mississippi 39205

Mr. John G. Cesare  
Director, Nuclear Licensing  
System Energy Resources, Inc.  
P. O. Box 23054  
Jackson, Mississippi 39205

Mr. Jack McMillan, Director  
Division of Solid Waste Management  
Mississippi Department of Natural  
Resources  
Post Office Box 10385  
Jackson, Mississippi 39209

Mr. C. B. Hogg, Project Manager  
Bechtel Power Corporation  
P. O. Box 2166  
Houston, Texas 77252-2166

Alton B. Cobb, M.D.  
State Health Officer  
State Board of Health  
P.O. Box 1700  
Jackson, Mississippi 39205

Mr. H. O. Christensen  
Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
Route 2, Box 399  
Port Gibson, Mississippi 39150

President  
Claiborne County Board of Supervisors  
Port Gibson, Mississippi 39150

Regional Administrator, Region II  
U. S. Nuclear Regulatory Commission  
101 Marietta Street  
Suite 2900  
Atlanta, Georgia 30323

AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. NPF-29 - GRAND GULF

DATED: February 15, 1989

**Docket File**

NRC PDR

Local PDR

PDII-1 Reading

G. Lainas (14E4)

E. Adensam (14H3)

E. Reeves

P. Anderson

L. Kintner

OGC

D. Hagan (MNBB 3302)

E. Jordan (MNBB 3302)

B. Grimes (9A2)

T. Meeks (4) (P1-137)

W. Jones (P-130A)

E. Butcher (11F23)

J. Craig

ACRS (10)

GPA/PA

ARM/LFMB

cc: Licensee/Applicant Service List



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

MISSISSIPPI POWER & LIGHT COMPANY

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 55  
License No. NPF-29

1. The Nuclear Regulatory Commission (the Commission) has found that
  - A. The application for amendment by System Energy Resources, Inc., (the licensee), dated August 19, 1988, as supplemented October 10, 1988, 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.

8902230515 890215  
PDR ADOCK 05000416  
PDC

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. 55, are hereby incorporated into this license. System Energy Resources, 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

151

Edward A. Reeves, Acting Director  
Project Directorate II-1  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: February 15, 1989

OFC	:LA:PD21:DRPR:PM:PD21:DRPR:BC:SPLB:DEST:D:PD21:DRPR	: OGC	:
NAME	: PAnderson : LKIntner : JCraig : EReeves	: APH :	:
DATE	:01/30/89 :01/30/89 :02/08/89 :02/14/89	: 2/07/89 :	:

ATTACHMENT TO LICENSE AMENDMENT NO. 55

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.

Remove

3/4 9-8

Insert

3/4 9-8

## REFUELING OPERATIONS

### 3/4.9.6 REFUELING EQUIPMENT

#### REFUELING PLATFORM

##### LIMITING CONDITION FOR OPERATION

---

3.9.6.1 The refueling platform shall be OPERABLE and only the main hoist shall be used for handling fuel assemblies.

APPLICABILITY: During handling of fuel assemblies or control rods in the primary containment with the refueling platform.

##### ACTION:

With the requirements for refueling platform OPERABILITY not satisfied, suspend use of any inoperable refueling platform equipment from operations involving the handling of fuel assemblies or control rods after placing the load in a safe condition.

##### SURVEILLANCE REQUIREMENTS

---

4.9.6.1 Each refueling platform hoist to be used for handling fuel assemblies or control rods shall be demonstrated OPERABLE within 7 days prior to the handling of fuel assemblies or control rods:

- a. In the containment fuel pool, reactor cavity or reactor pressure vessel by:
  1. Demonstrating operation of the slack cable cutoff on the main hoist when the total cable load is  $50 \pm 10$  pounds.
  2. Demonstrating operation of the grapple engaged loaded interlock on the main hoist before the total cable load exceeds 535 pounds.
  3. Demonstrating operation of the jam cutoff on the main hoist before the total cable load exceeds 1250 pounds.
  4. Demonstrating operation of primary and redundant overload cutoff on the auxiliary hoists before the load exceeds 550 pounds.
- b. In or over the reactor pressure vessel by:
  1. Demonstrating operation of the downtravel cutoff on the main hoist when the bottom of the grapple is  $\geq 1.0$  inch above the top guide.
  2. Demonstrating operation of the primary and redundant fuel load interlocks on the main hoist before the total cable load exceeds 600 pounds.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. NPF-29

SYSTEM ENERGY RESOURCES, INC., et al

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated August 19, 1988, as supplemented October 10, 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. The proposed amendment would change the Technical Specifications (TS) by changing the downtravel power cutoff setpoint for the refueling platform hoist in TS 3/4.9.6, "Refueling Equipment." The change is needed to allow for expected thermal and irradiation growth of fuel assemblies and to have a setpoint indexed to a fixed point, the fuel top guide.

2.0 EVALUATION

The downtravel for the refueling platform main hoist is limited to prevent the fuel assembly grapple from being lowered below the fuel top guide, thus precluding damage to the reactor internals or the hoist grapple by inadvertently engaging the top guide with the grapple. Currently, the top of the fuel assembly handles is a reference point for the setpoint. However, as the fuel assemblies grow slightly with burnup, the fuel assembly handle moves upward creating a problem for the grapple engagement. In addition to handling fuel assemblies, this hoist is used to handle double blade guide assemblies and single blade guide assemblies. These guide assemblies are used during refueling to provide lateral support and guidance for control rods in control cells from which two or more fuel assemblies have been removed. While the handles for the double blade guides are at about the same elevation as the fuel assembly handles, the single blade guide handles are at a lower elevation.

During the last refueling outage, with the downtravel power cutoff setpoint close to the lowest allowable value, it was difficult to engage the grapple on the handle of the single blade guide assemblies. For these reasons, the licensee has requested that the reference point for establishing the setpoint for the downtravel power cutoff be changed to the fuel top guide. Thus, the allowable fuel grapple downtravel distance will remain constant for future fuel cycles. In addition, the allowable downtravel cutoff distance would be lowered by approximately 0.5 inches to facilitate engaging the grapple on the single blade guide assemblies.

8902230516 890215  
PDR ADDEK 05000416  
P PIC

The present TS is for the downtravel setpoint of 3.5 + 0.5 inches below the top of the fuel assembly handles. For a new fuel assembly, the top of a fuel channel is about 4 inches below the top of the handle; and the top of the fuel top guide is about 1.5 inches below the top of the fuel channel. Therefore, the present setpoint, if referenced on a new fuel assembly, would allow the grapple to contact fuel channels of irradiated fuel and would keep the grapple at least 1.5 inches above the fuel top guide. However, operational problems occur, as noted above.

The proposed setpoint of equal to or greater than 1.0 inch above the fuel top guide will prevent potential damage to the refueling platform main hoist and the reactor internals during lifting operations. The new setpoint will not allow engaging the top guide with the fuel grapple. The impact force of the grapple on the fuel channel would not damage the channel because of the light weight of the grapple, which is suspended from a cable. Accordingly, the proposed setpoint is acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the 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 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 off site; and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

### 4.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration, which was published in the Federal Register on November 2, 1988 at 53 FR 44252, and consulted with the State of Mississippi. No public comments or requests for hearing were received, and the State of Mississippi did not have any comments.

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 the security, or to the health and safety of the public.

Principal Contributor: L. L. Kintner, Project Directorate II-1

Dated: February 15, 1989