

August 31, 1989

Docket No. 50-416

DISTRIBUTION
See attached sheet

Mr. W. T. Cottle
Vice President, Nuclear Operations
System Energy Resources, Inc.
Post Office Box 469
Port Gibson, Mississippi 39150

Dear Mr. Cottle:

SUBJECT: ISSUANCE OF AMENDMENT NO. 61 TO FACILITY OPERATING LICENSE
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1, REGARDING
A NEW AUXILIARY HOIST (TAC NO. 71446)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 61 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 December 2, 1988.

The amendment changes Technical Specification 3/4.9.6.3, "Fuel Handling Platform," by adding surveillance requirements for a second auxiliary hoist and by changing the name of the original auxiliary hoist to monorail auxiliary hoist.

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,

Original Signed By:

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. 61 to NPF-29
- 2. Safety Evaluation

cc w/enclosures:
See next page

^{NS-1}
[GG ISSU AMEND 71446]

| | | | | | |
|------|---|---|---|---|---|
| OFC | :LA:PD21:DRPR:PM:PD21:DRPR:D:PD21:DRPR | : | : | : | : |
| NAME | : PAnderson : LKintner:bd: EAdensam | : | : | : | : |
| DATE | : 08/31/89 : 07/15/89 : 08/18/89 | : | : | : | : |

OFFICIAL RECORD COPY
8909110099 890831
FDR ADOCK 05000416
FDC

CP18

AMENDMENT NO.61 TO FACILITY OPERATING LICENSE NO. NPF-29 - GRAND GULF

Docket File
NRC & Local PDRs
PDII-1 Reading
S. Varga (14E4)
G. Lainas
E. Adensam
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)
J. Calvo (11D3)
J. Wermiel
ACRS (10)
GPA/PA
ARM/LFMB

cc: Licensee/Applicant Service List

DF01
1/1

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

Grand Gulf Nuclear Station (GGNS)

cc:

Mr. T. H. Cloninger
Vice President, Nuclear Engineering
& Support
System Energy Resources, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

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

Robert B. McGehee, Esquire
Wise, Carter, Child, 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. - 12th Floor
Washington, D.C. 20005-3502

Office of the Governor
State of Mississippi
Jackson, Mississippi 39201

Mr. Ralph T. Lally
Manager of Quality Assurance
Energy Services, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

Attorney General
Gartin Building
Jackson, Mississippi 39205

Mr. John G. Cesare
Director, Nuclear Licensing
System Energy Resources, Inc.
P. O. Box 469
Port Gibson, Mississippi 39150

Mr. Jack McMillan, Director
Division of Solid Waste Management
Mississippi Department of Natural
Resources
P. O. 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



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

SYSTEMS ENERGY RESOURCES, INC., et al.

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 61
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 December 2, 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.

8909110102 890831
PDR ADDCK 05000416
P CDC

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. 61, 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

Original Signed By:

Elinor G. Adensam, 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: August 31, 1989

| | | | | | |
|------|--------------------------------------|-----------------------|--------------|-----------|---|
| OFC | :LA:PD21:DRPR:PM:PD21:DRPR:SPLB:DEST | OGC | :D:PD21:DRPR | : | : |
| NAME | :Panderson | :LKHirner:bd:JWermiel | :EAdensam | : | : |
| DATE | :07/5/89 | :07/6/89 | :08/22/89 | :08/31/89 | : |

ATTACHMENT TO LICENSE AMENDMENT NO. 61

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 a vertical line indicating the area of change.

Remove

3/4 9-10

Insert

3/4 9-10

REFUELING OPERATIONS

FUEL HANDLING PLATFORM

LIMITING CONDITION FOR OPERATION

3.9.6.3 The fuel handling platform shall be OPERABLE and only the main hoist shall be used to move irradiated fuel.

APPLICABILITY: During handling of fuel assemblies or control rods in the auxiliary building with the fuel handling platform.

ACTION:

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

SURVEILLANCE REQUIREMENTS

4.9.6.3.1 Each fuel handling 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 by:

- a. Demonstrating operation on the slack cable cutoff on the main hoist when the total cable load is 50 ± 10 pounds.
- b. Demonstrating operation of the grapple-engaged loaded interlock on the main hoist before the total cable load exceeds 400 pounds.
- c. Demonstrating operation of the jam cutoff on the main hoist before the total cable load exceeds 1150 pounds.
- d. Demonstrating operation of the primary and redundant overload cutoff on both of the auxiliary hoists before the load exceeds 550 pounds (with the load override switch on the monorail auxiliary hoist at the 500-pound position).
- e. Demonstrating operation of the primary and redundant overload cutoff on the monorail auxiliary hoist before the load exceeds 1050 pounds with the load override switch at the 1000-pound position.

4.9.6.3.2 The monorail auxiliary hoist load override switch shall be verified to be in the 500-pound position within 2 hours and at least once per 12 hours during hoist operation, except when engaged in new fuel movement in which case the switch may be in the 1000-pound position.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 61 TO FACILITY OPERATING LICENSE NO. NPF-29

SYSTEM ENERGY RESOURCES, INC.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated December 2, 1988, System Energy Resources, Inc. (SERI or 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 Technical Specification (TS) 3/4.9.6.3, "Fuel Handling Platform," by adding surveillance requirements for a second auxiliary hoist and by changing the name of the original "auxiliary hoist" to monorail auxiliary hoist. This new hoist would be used for handling control rods in the spent fuel pool. The FHP monorail auxiliary hoist surveillance requirements in the present TS ensure that the monorail auxiliary hoist has sufficient load capacity and the appropriate load override switch setpoint for handling fuel assemblies or control rods. The proposed surveillance requirements will ensure that the new auxiliary hoist has sufficient load capacity for handling control rods.

The fuel handling platform (FHP) inside the auxiliary building is used to handle fuel assemblies and control rods in the spent fuel pool. The new auxiliary hoist would facilitate placing control rods (CR) in the control rod rack of the spent fuel pool. During refueling, the main hoist mast on the FHP is tooled for movement of fuel assemblies only. Because the control rod grapple is not compatible with the main hoist mast, only the monorail auxiliary hoist is available for handling control rods. However, the area of the spent fuel pool containing the CR rack is normally inaccessible to the monorail auxiliary hoist. To access the CR rack, the bridge-rail stops must be relocated, the main mast must be stowed, and the bridge-forward limit switch must be jumpered. This is a particular burden on outage schedules, which require repetitive fuel handling followed by CR handling. With the proposed addition of a new auxiliary hoist on the FHP, the above actions are not needed to move a control rod in this area. This will allow the rail stops, the limit switches and the appropriate refueling tools to remain in place.

The refueling platform (RP) inside containment is used to handle fuel assemblies and control rods over the reactor and upper containment pool. The RP has an auxiliary hoist, main hoist and monorail auxiliary hoist. With the addition of the new auxiliary hoist to the FHP, the FHP will have the same lifting capability as the RP.

8909110103 890831
PDR ADOCK 05000416
PDC

2.0 EVALUATION

The NRC staff has reviewed the licensee's December 2, 1988 submittal. The FHP was manufactured by the vendor who manufactured the RP and has a structural design similar to that for the RP. The proposed auxiliary hoist for the FHP was manufactured by the same vendor and has the same design as the RP auxiliary hoist. The only significant difference between the RP and FHP is that interlocks on the RP prevent unsafe operation over the reactor pressure vessel during control rod movements. The FHP is seismic Category 1 and will remain in this Category with the addition of the auxiliary hoist.

The proposed auxiliary hoist for the FHP will not be used to lift more than 550 pounds except during a load test. A load monitor disables upward hoist travel on all speeds for loads greater than 550 pounds. The load monitor is demonstrated operable 7 days prior to moving control rods or other equipment by means of the FHP. The load monitor has no bypasses. The FHP operator will be provided with a visual indication of the weight of the load lifted with the proposed auxiliary hoist. The proposed auxiliary hoist on the FHP will not lift spent or new fuel.

The proposed amendment would make the FHP surveillance requirements in TS 4.9.6.3.1.d applicable to the new auxiliary hoist, as well as the existing monorail auxiliary hoist, with the exception of a load override switch, which is not included on the new hoist because it will not handle loads greater than 550 pounds. The amendment adds the word "monorail" to the name of the existing auxiliary hoist to distinguish it from the new auxiliary hoist.

The proposed amendment also adds the word "monorail" to the name of the auxiliary hoist in TS 4.9.6.3.1.e. This is necessary since only the monorail auxiliary hoist has a load override switch with a 1000 pound position. Therefore, only the monorail auxiliary hoist should have the redundant overload cutoffs verified in the 1000 pound position.

The proposed amendment also adds the word "monorail" to TS 4.9.6.3.2 to ensure that the load override switch is verified in the 500 pound position for the monorail auxiliary hoist, except when engaged in new fuel movement. This addition is necessary because the load override switch should be in the lower load override position to provide the maximum load drop accident protection, except when the 1000 pound position is used for new fuel movement.

The licensee has analyzed a load drop accident for the new auxiliary hoist. The probability for such an accident is the same as the probability for handling these loads with the auxiliary hoist on the RP, because the design, manufacture and installation of the new auxiliary hoist on the FHP will be the same as the design, manufacture and installation of the existing auxiliary hoist on the RP. The consequences of a load drop from the new FHP auxiliary hoist are the same as the consequences of a load drop from the RP auxiliary

hoist, because the load limit is the same (550 pounds) and the limiting load height (42 feet) is the same. Therefore, load drop consequences are bounded by the consequences of the previously analyzed non-fuel load drop from the existing auxiliary hoist.

The new auxiliary hoist would eliminate the need for the removal of the bridge-rail stops and the jumpering of the bridge-forward limit switch to gain access to the control rod rack. The new hoist would thus reduce the potential for a mishap occurring during handling of control rods in the control rod rack area of the spent fuel pool.

Based on its review of the licensee's submittal, the NRC staff concludes that the proposed TS change is acceptable because the consequences of the load drop accident are bounded by the consequences of the existing auxiliary hoist accident analysis, the new auxiliary hoist design is the same as the existing auxiliary hoist design, and the new hoist would reduce the potential for mishaps in placing control rods in the spent fuel pool CR rack.

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 (54 FR 5169) on February 1, 1989, 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: H. O. Christensen

Dated: August 31, 1989