

October 1, 1990

Docket Nos. 50-348  
and 50-364

DISTRIBUTION  
See attached sheet

Mr. W. G. Hairston, III  
Senior Vice President  
Alabama Power Company  
40 Inverness Center Parkway  
Post Office Box 1295  
Birmingham, Alabama 35201

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE  
NO. NPF-2 AND AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO.  
NPF-8 REGARDING REVISION OF BATTERY LOAD PROFILE REQUIREMENTS -  
JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2, (TAC NOS. 77026 AND  
77027)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 84 to Facility Operating License No. NPF-2 and Amendment No. 77 to Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your submittal dated June 15, 1990.

The amendments change the Technical Specifications to delete the tables which delineate the load profiles for the auxiliary building and service water battery service tests. The tables contained in the Technical Specifications are replaced with statements requiring testing to equivalent load profiles based on anticipated breaker operations required during loss-of-offsite power and loss-of-coolant accident conditions. The equivalent load profiles are defined in the Final Safety Analysis Report.

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

Sincerely,

Original Signed By:

Stephen T. Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 84 to NPF-2
- 2. Amendment No. 77 to NPF-8
- 3. Safety Evaluation

cc w/enclosures:

See next page

DFC	:LA:PD21:DRPR:PM:PD21:DRPR:D:PD21:DRPR	:	:	:	:
NAME	: PAnderson : SHoffman : EAdensam	:	:	:	:
DATE	: 9/11/90 : 9/12/90 : 9/21/90	:	:	:	:

OFFICIAL RECORD COPY  
 9010050306 901001  
 PDR ADOCK 05000348  
 P PDC

DFol  
11

Mr. W. G. Hairston, III  
Alabama Power Company

Joseph M. Farley Nuclear Plant

cc:

Mr. R. P. McDonald  
Executive Vice President  
Nuclear Operations  
Alabama Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Resident Inspector  
U.S. Nuclear Regulatory Commission  
P. O. Box 24 - Route 2  
Columbia, Alabama 36319

Mr. B. L. Moore  
Manager, Licensing  
Alabama Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

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

Mr. Louis B. Long, General Manager  
Southern Company Services, Inc.  
Houston County Commission  
P. O. Box 2625  
Birmingham, Alabama 35202

Chairman  
Houston County Commission  
Dothan, Alabama 36301

Mr. D. N. Morey  
General Manager - Farley Nuclear Plant  
P. O. Box 470  
Ashford, Alabama 36312

Claude Earl Fox, M.D.  
State Health Officer  
State Department of Public Health  
State Office Building  
Montgomery, Alabama 36130

Mr. J. D. Woodward  
Vice-President - Nuclear  
Farley Project  
Alabama Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. NPR-2 - FARLEY, UNIT 1  
AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. NPF-8 - FARLEY, UNIT 2

**Docket File**

NRC PDR

Local PDR

PDII-1 Reading

S. Varga (14E4)

G. Lainas

E. Adensam

P. Anderson

S. Hoffman(2)

OGC

D. Hagan (MNBB 3302)

E. Jordan (MNBB 3302)

G. Hill (4) (P1-137)

Wanda Jones (P-130A)

J. Calvo (11D3)

F. Rosa

ACRS (10)

GPA/PA

OC/LFMB

cc: Farley Service List



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

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84  
License No. NPF-2

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Alabama Power Company (the licensee), dated June 15, 1990, 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 license 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-2 is hereby amended to read as follows:

9010050310 901001  
PDR ADOCK 05000348  
P PDC

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 84, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of receipt of the amendment.

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: October 1, 1990

OFC	: LAI	: PD21	: DRPR	: PM	: PD21	: DRPR	: OGC	: D	: PD21	: DRPR	:	:
NAME	: Anderson	:	: Hoffman	:	:	:	: EAdensam	:	:	:	:	:
DATE	: 9/11/90	:	: 9/12/90	:	: 9/17/90	:	: 9/28/90	:	:	:	:	:

ATTACHMENT TO LICENSE AMENDMENT NO. 84

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages

3/4 8-9(a)

3/4 8-13

Insert Pages

3/4 8-9(a)

3/4 8-13

ELECTRICAL POWER SYSTEMS

AUXILIARY BUILDING D.C. DISTRIBUTION - OPERATING

SURVEILLANCE REQUIREMENTS (Continued)

=====

5. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 2 hours when the battery is subjected to a battery service test or the individual cell voltage does not decrease below 1.75 volts when the battery is subjected to the equivalent load profile based on anticipated breaker operations required during loss-of-offsite power (LOSP) and loss-of-coolant accident (LOCA) conditions as described in the Final Safety Analysis Report.
- d. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test per 4.8.2.3.2.c.5.
- e. At least once per 18 months, performance discharge test of battery capacity shall be given to any battery that shows signs of degradation or has reached 17 years or 85% of the service life expected for the application, whichever comes first. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

ELECTRICAL POWER SYSTEMS

SERVICE WATER BUILDING D.C. DISTRIBUTION - OPERATING

SURVEILLANCE REQUIREMENTS (Continued)

=====

2. There is no visible excessive corrosion at either terminals or connectors, or the connection resistance of these items is less than or equal to 1500 microhms from post to post\*, and
  3. The average electrolyte temperatures of ten of the connected cells deviate less than or equal to 5°F from each other\*\*.
- c. At least once per 18 months by verifying that:
1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,
  2. The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material,
  3. The resistance of each cell-to-cell and terminal connection is less than or equal to 1500 microhms from post to post\*, and
  4. The battery charger will supply at least 3 amperes at greater than or equal to 125 volts for at least 4 hours.
  5. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 2 hours when the battery is subjected to a battery service test or the individual cell voltage does not decrease below 1.75 volts when the battery is subjected to the equivalent load profile based on anticipated breaker operations required during loss-of-offsite power (LOSP) and loss-of-coolant accident (LOCA) conditions as described in the Final Safety Analysis Report.

---

\* For any connection resistance determined to be greater than 1500 microhms from post to post, the battery may be considered operable provided that within 24 hours the connection resistance is restored to less than or equal to 1500 microhms from post to post.

\*\* If a deviation greater than 5°F is determined, the battery may be considered operable provided that within 24 hours the temperature deviation is corrected.





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

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 77  
License No. NPF-8

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Alabama Power Company (the licensee), dated June 15, 1990, 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 license 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-8 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 77, are hereby incorporated in the license. Alabama Power Company shall operate the facility in accordance with the Technical Specifications.

- 3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of receipt of the amendment.

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: October 1, 1990

OFC	: LAE/PD21	: DRPR:PM:PD21:DRPR:	OGC	: D:PD21:DRPR :	:	:
NAME	: Anderson	: SHoffman:	9/27/90	: EAdensam	:	:
DATE	: 9/11/90	: 9/12/90	:	: 9/28/90	:	:

ATTACHMENT TO LICENSE AMENDMENT NO. 77

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages

3/4 8-12(a)  
3/4 8-16

Insert Pages

3/4 8-12(a)  
3/4 8-16

ELECTRICAL POWER SYSTEMS

AUXILIARY BUILDING D.C. DISTRIBUTION - OPERATING

SURVEILLANCE REQUIREMENTS (Continued)

=====

5. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 2 hours when the battery is subjected to a battery service test or the individual cell voltage does not decrease below 1.75 volts when the battery is subjected to the equivalent load profile based on anticipated breaker operations required during loss-of-offsite (LOSP) and loss-of-coolant accident (LOCA) conditions as described in the Final Safety Analysis Report.
- d. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of battery service test per 4.8.2.3.2.c.5.
- e. At least once per 18 months, performance discharge test of battery capacity shall be given to any battery that shows signs of degradation or has reached 17 years or 85% of the service life expected for the application, whichever comes first. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

ELECTRICAL POWER SYSTEMS

SERVICE WATER BUILDING D.C. DISTRIBUTION - OPERATING

SURVEILLANCE REQUIREMENTS (Continued)

=====

2. There is no visible excessive corrosion at either terminals or connectors, or the connection resistance of these items is less than or equal to 1500 microhms from post to post\*, and
  3. The average electrolyte temperatures of ten of the connected cells deviate less than or equal to 5°F from each other\*\*.
- c. At least once per 18 months by verifying that:
1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,
  2. The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material,
  3. The resistance of each cell-to-cell and terminal connection is less than or equal to 1500 microhms from post to post\*, and
  4. The battery charger will supply at least 3 amperes at greater than or equal to 125 volts for at least 4 hours.
  5. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 2 hours when the battery is subjected to a battery service test or the individual cell voltage does not decrease below 1.75 volts when the battery is subjected to the equivalent load profile based on anticipated breaker operations required during loss-of-offsite power (LOSP) and loss-of-coolant accident (LOCA) conditions as described in the Final Safety Analysis Report.

---

\* For any connection resistance determined to be greater than 1500 microhms from post to post, the battery may be considered operable provided that within 24 hours the connection resistance is restored to less than or equal to 1500 microhms from post to post.

\*\* If a deviation greater than 5°F is determined, the battery may be considered operable provided that within 24 hours the temperature deviation is corrected.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. NPF-2  
AND AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. NPF-8

ALABAMA POWER COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated June 15, 1990, the Alabama Power Company submitted a request to delete the load profile tables used for battery service testing of the auxiliary building and the service water Class 1E batteries from certain sections of the Technical Specifications. The deleted load profile tables are to be replaced with statements requiring battery service testing to equivalent load profiles based on anticipated breaker operations and other electrical loads during loss of offsite power and loss-of-coolant accident conditions. Equivalent battery load profiles are explicitly defined in the Final Safety Analysis Report Update (FSAR). The proposed revised sections of the Technical Specifications note that these profiles are described in the FSAR. Thus, by removing the specific load profile tables from the Technical Specifications, subsequent revision of battery load profiles will not require revising the Technical Specifications. Future changes to the load profiles will be performed in accordance with the requirements of 10 CFR 50.59.

2.0 EVALUATION

Deletion of the load profile tables from the Technical Specifications will not change the surveillance testing of the batteries as currently being performed. The proposed Technical Specifications state that the batteries shall be subjected to surveillance testing using an equivalent load profile based on anticipated breaker operations as described in the FSAR. Referencing the FSAR load profiles in the Technical Specification surveillance requirements will ensure that the batteries are subjected to a design basis load profile service test. As battery service testing will still be required to be performed in a manner which will demonstrate their operability for design basis events, the proposed changes are considered administrative in nature and do not impact the technical basis used to support the safe operation of the facility.

9010050312 901001  
PDR ADOCK 05000348  
P FDC

### 3.0 SUMMARY

The staff concludes that the proposed changes to the Technical Specifications conform to the applicable regulatory requirements and do not impact the technical bases used to support operation of the facility. Based on this, we find these changes to be acceptable.

### 4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted areas as defined in 10 CFR Part 20 and changes the surveillance requirements. The staff has determined that these amendments involve 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 these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

### 5.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 28473) on July 11, 1990, and consulted with the State of Alabama. No public comments or requests for hearing were received, and the State of Alabama 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 1, 1990

Principal Contributors: F. Ashe  
S. Hoffman