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SEP 20 1982

Docket Nos. 50-348  
and 50-364

Mr. F. L. Clayton  
Senior Vice President  
Alabama Power Company  
Post Office Box 2641  
Birmingham, Alabama 35291

Dear Mr. Clayton:

The Commission has issued the enclosed Amendment No. 27 to Facility Operating License No. NPF-2 and Amendment No. 16 to NPF-8 for the Joseph M. Farley Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated August 3, 1982, supplemented by letter dated August 20, 1982.

The amendments change the Technical Specifications relating to diesel generator load testing for a one-time period expiring on September 1, 1983. The change allows the diesel generators to be tested for two hours at the 2000-hour rating and 22 hours at the continuous rating instead of at the 2000-hour rating pending future changes to the loadings of river water pumps onto the diesels automatically.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original signed by:

Edward A. Reeves, Project Manager  
Operating Reactors Branch No. 1  
Division of Licensing

Enclosures:

1. Amendment No. 27 to NPF-2
2. Amendment No. 16 to NPF-8
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:  
See next page

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PDR ADDCK 05000348  
P PDR

*no objection to notice of issuance*  
*WJ*

OFFICE	ORB 1 <i>cp</i>	ORB 1 <i>ER</i>	ORB 1 <i>SV</i>	AD:OR	OELD <i>OK</i>		
SURNAME	CParrish	EReeves/rs	SVarga	GLamas	DSWANSON		
DATE	9/10/82	9/10/82	9/10/82	9/13/82	9/14/82		

Mr. F. L. Clayton  
Alabama Power Company

SEP 20 1982

cc: Mr. W. O. Whitt  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 27  
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 August 3, 1982, supplemented by letter dated August 20, 1982, 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.

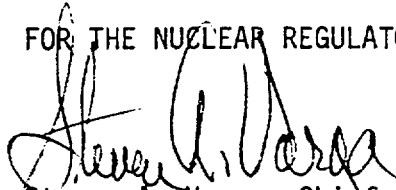
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-2 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 27, 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 the date of its issuance, but expires on September 1, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 20, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 27 TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Revise Appendix A as follows:

Remove Page

3/4 8-5

Insert Page

3/4 8-5

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz during this test.

- c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential and low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus and/or a safety injection test signal.
5. Verify that the diesel generators operate for 24 hours while loaded to 4353 kw\* for the 4075 kw diesels and 3100\* for the 2850 kw diesels (2000 hour rating). After completing this 24-hour test, manually trip the diesel generator from the 2000-hour\* load and demonstrate hot restart capability by performing Surveillance Requirement 4.8.1.1.2.a.4 within 10 minutes.
6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4353 kw for the 4075 kw generator and 3100 kw for the 2850 kw generator.
7. Verifying the diesel generator's capability to:
  - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power.
  - b) Transfer its loads to the offsite power source, and
  - c) Be restored to its standby status.
8. Verifying that with the diesel generators operating in a test mode (connected to its bus), a simulated safety injection signal overrides the test mode by returning the diesel generator to standby operation.
9. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within  $\pm 10\%$  of its required value or 0.5 seconds whichever is greater.
10. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
  - a) Oil Temperature High (OTH)

\*For a one-time period only that expires on September 1, 1983, the load shall be as shown (i.e., the 2000-hour ratings) for a minimum of 2 hours and for the remainder of the 24-hour period, the loads shall be at the continuous rating. Reduction of load as necessary immediately prior to tripping is acceptable for this one-time period.



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

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 16  
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 August 3, 1982, supplemented by letter dated August 20, 1982, 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-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. 16, 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 the date of its issuance, but expires on September 1, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 20, 1982



ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 16 TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Revise Appendix A as follows:

Remove Page

3/4 8-5

Insert Page

3/4 8-5

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz during this test.

- c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential and low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus and/or a safety injection test signal.
5. Verify that the diesel generators operate for 24 hours while loaded to 4353 kw\* for the 4075 kw diesels and 3100\* for the 2850 kw diesels (2000 hour rating). After completing this 24-hour test, manually trip the diesel generator from the 2000-hour\* load and demonstrate hot restart capability by performing Surveillance Requirement 4.8.1.1.2.a.4 within 10 minutes.
6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4353 kw for the 4075 kw generator and 3100 kw for the 2850 kw generator.
7. Verifying the diesel generator's capability to:
  - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power.
  - b) Transfer its loads to the offsite power source, and
  - c) Be restored to its standby status.
8. Verifying that with the diesel generators operating in a test mode (connected to its bus), a simulated safety injection signal overrides the test mode by returning the diesel generator to standby operation.
9. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within  $\pm 10\%$  of its required value or 0.5 seconds whichever is greater.
10. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
  - a) Oil Temperature High (OTH)

\*For a one-time period only that expires on September 1, 1983, the load shall be as shown (i.e., the 2000-hour ratings) for a minimum of 2 hours and for the remainder of the 24-hour period, the loads shall be at the continuous rating. Reduction of load as necessary immediately prior to tripping is acceptable for this one-time period.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 27 TO FACILITY OPERATING LICENSE NO. NPF-2  
AND AMENDMENT NO. 16 TO FACILITY OPERATING LICENSE NO. NPF-8

ALABAMA POWER COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-348 AND 50-364

Introduction

By letter dated August 3, 1982, Alabama Power Company (APCo) proposed to change the Technical Specification loading requirements for the 24-hour test run of the emergency diesel generators. Subsequent to discussions with the NRC staff, APCo submitted a revision of this proposal by letter dated August 20, 1982.

Discussion

Technical Specification 4.8.1.1.2.c.5 requires a 24-hour test run of each of the emergency diesel generators (EDG) during each refueling outage. The specification requires the EDG's to be loaded to the 2000-hour rating for the full duration of the test run. This degree of loading was arrived at after consideration of a number of factors, including that for some of the five EDG's the accident loads that are automatically sequenced onto the EDG approach the 2000-hour rating.

In the August 3, 1982 letter, APCo proposed a two-stage test loading. The first two hours would be at the worst case accident load value or the continuous duty rating, whichever is greater. The subsequent 22 hours would be at the continuous duty ratings. APCo proposed this loading scheme as a permanent change to the Technical Specifications. The justification was given as follows:

1. The EDG manufacturer (Colt Industries) indicates that testing at greater than 60-90% of the continuous load does not contribute to the assurance of dependability or longevity.
2. During certain accident scenarios, APCo stated that loads beyond the continuous duty rating could be manually removed within 2 hours. The loads to be removed are the river water pumps that would be needed only if the emergency cooling water pond (the safety grade, ultimate heat sink) dam should fail.

During telephone discussions between the NRC staff, the APCo staff and the Bechtel staff on August 10 and 13, 1982, we indicated that, as long as the accident analysis required loading the river water pumps on an automatic basis, we could not approve a permanent change to test the EDG's at a lower loading.

Subsequently, APCo's August 20, 1982 letter revised the earlier proposal. First, APCo committed to submit new analysis that will justify deletion of the river water pump system on an automatic basis. Second, the automatic sequencing of the EDG would then be changed to delete the river water pumps and hence reduce the automatic loads to below the continuous duty ratings. Third, advance approval on a one-time basis was requested to conduct the next 24-hour test run in the two stages described earlier. Our evaluation of APCo's proposals, as modified, is as follows.

### Evaluation

Surveillance testing of the loading of the EDG is based on a number of factors, including the magnitude of any automatically sequenced accident loads. River water system pumps are currently automatic loads. However, at the Farley plant the river water system serves as a backup to the emergency cooling pond, which is a safety-grade ultimate heat sink for all postulated accidents. The pond and its dam are seismic Category I; designed, constructed, and tested in accordance with all applicable standards. If the dam withstands the postulated seismic event, the river water system would not be needed except for makeup. APCo has outlined this rationale and we believe it is likely that they will be able to justify the deletion of the river water pumps as automatic loads on the EDG. The river water pumps would remain available as a manual backup. However, the future APCo analysis will require some time to complete and then will require NRC staff review and approval.

APCo is concerned that testing at overload conditions could have a detrimental impact on long-term EDG reliability. They argue that sufficient test results have already been accumulated to establish a statistical basis for the EDG reliability. We have reviewed this data and have determined that modifying the loading on a one-time basis will not impact the confidence in the reliability of the EDG or their capability to operate under overload conditions if the need should arise.

To support the two-stage load testing, APCo has agreed to implement procedures to remove the river water pumps loads from the EDG's within two hours. Further, they agree to implement procedures that will explicitly limit the manually-connected loads to the continuous duty rating. We consider this limitation of loads basic to our agreement.

### Summary

We conclude that it is likely that APCo will be able to justify deleting the river water pumps from the automatic loads on the EDG. Procedures will be in place to reduce the automatic loads to the continuous duty level and to prevent manual loadings from exceeding this level. The statistical benefit to be gained from this one-time test at the 2000-hour loading for the full 24-hour period is offset by the concern for long-term reliability. Therefore, on a one-time basis which expires September 1, 1983, we find the proposed 2-stage testing to be acceptable.

### Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: September 20, 1982

Principal Contributors:

J. T. Beard

E. A. Reeves

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-348 AND 50-364ALABAMA POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 27 to Facility Operating License No. NPF-2 and Amendment No. 16 to Facility Operating License No. NPF-8 issued to Alabama Power Company (the licensee), which revised Technical Specifications for operation of the Joseph M. Farley Nuclear Plant, Unit Nos. 1 and 2 (the facilities) located in Houston County, Alabama. The amendments are effective as of the date of issuance but will expire on September 1, 1983.

The amendments change the Technical Specifications relating to diesel generator load testing for a one-time period expiring on September 1, 1983. The change allows the diesel generators to be tested for two hours at the 2000-hour rating and 22 hours at the continuous rating instead of at the 2000-hour rating pending future changes to the loadings of river water onto the diesels automatically.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since these amendments do not involve a significant hazards consideration.

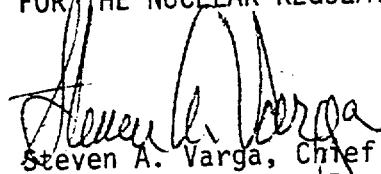
- 2 -

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated August 3, 1982, as supplemented August 20, 1982, (2) Amendment Nos. 27 and 16 to License Nos. NPF-2 and NPF-8, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the George S. Houston Memorial Library, 212 W. Burdeshaw Street, Dothan, Alabama 36303. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 20th day of September 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
Division of Licensing