

September 23, 1986

Docket No. 50-348

Mr. R. P. McDonald
Senior Vice President
Alabama Power Company
Post Office Box 2641
Birmingham, Alabama 35291

Dear Mr. McDonald:

The Commission has issued the enclosed Amendment No. 66 to Facility Operating License NPF-2 for the Joseph M. Farley Nuclear Plant, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated July 8, 1986.

The amendment deletes the fuel rod weight limit in Technical Specification 5.3.1 which contains descriptive design features of the fuel assemblies.

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

Sincerely,

/s/

Edward A. Reeves, Project Manager
PWR Project Directorate #2
Division of PWR Licensing-A

Enclosures:

- 1. Amendment No. 66 to NPF-2
- 3. Safety Evaluation

cc: w/enclosures:
See next page

LA: PAD#2
DM: PWR
8/1/86

PM: PAD#2
EReeves:hc
8/2/86

JSR
PD: PAD#2
LRubenstein
8/10/86

OGC
8/16/86
RSB:
C. BERLINGER
9/9/86

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Mr. R. P. McDonald
Alabama Power Company

Joseph M. Farley Nuclear Plant

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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. 66
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 July 8, 1986, 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, as amended, the provisions of the Act, and the 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:

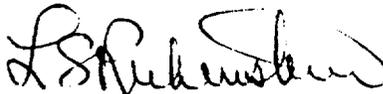
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 66, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Lester S. Rubenstein, Director
PWR Project Directorate #2
Division of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 23, 1986

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 66 FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the areas of change. A corresponding overleaf page is also provided to maintain document completeness.

Remove Pages

5-6

Insert Pages

5-6

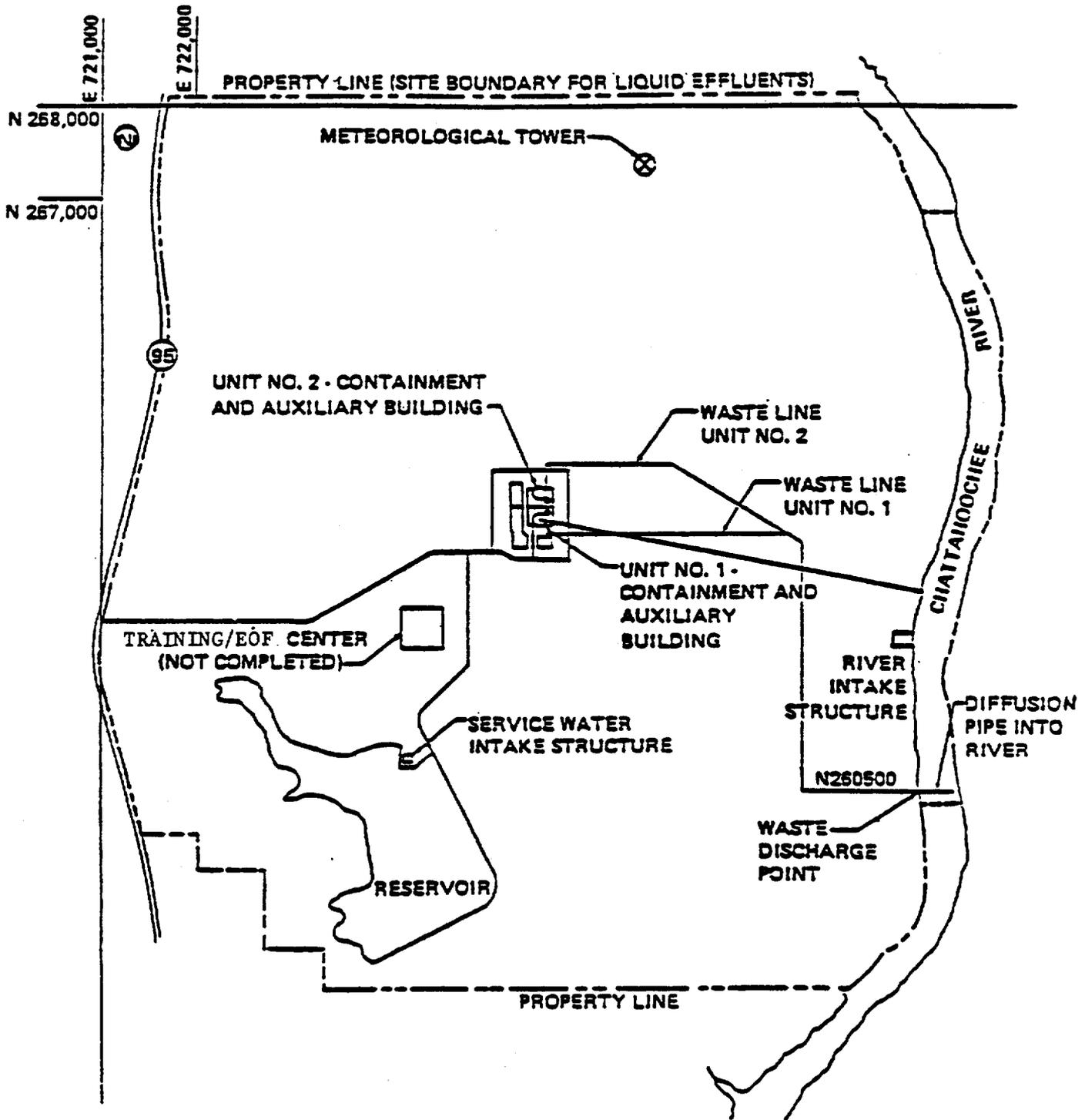


Figure 3.1-4 Plant Farley Site Map
Exclusion Area and Liquid Effluents

DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 157 fuel assemblies with each fuel assembly containing 264 fuel rods clad with Zircaloy -4. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment of 3.2 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.3 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 48 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

- 5.4.1 The reactor coolant system is designed and shall be maintained:
- In accordance with the code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
 - For a pressure of 2485 psig, and
 - For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is 9723 + 100 cubic feet at a nominal T_{avg} of 525°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. NPF-2

ALABAMA POWER COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT NO. 1

DOCKET NO. 50-348

INTRODUCTION

By License Amendment No. 56 to Joseph M. Farley Nuclear Plant Unit 2, we issued a change to Technical Specification 5.3.1 on an expedited basis to allow startup of Unit 2. By letter dated July 8, 1986, the licensee requested a similar change for Unit 1 to be effective for the upcoming refueling outage scheduled to start in October 1986. Therefore, this amendment is being handled as a routine change and followup to the amendment issued for Unit 2.

The Design Features Section 5.3.1, Fuel Assemblies, of the Farley 1 Technical Specifications identifies a maximum total fuel rod weight of 1,766 grams of uranium. Recent changes by Westinghouse to the fuel design, including chamfered pellets with a reduced dish and a nominal density increase, have increased the fuel weight slightly. The weight increase would cause the assembly averaged fuel rod weight for Cycle 8 fuel to exceed the 1,766 limit by approximately one percent. The proposed change would delete the weight limits from the Technical Specifications to allow use of the slightly heavier fuel which is reflected in the Final Safety Analysis Report (FSAR) Update for Farley.

Evaluation

The important safety related parameters which depend on fuel weight, such as reactor criticality, power level, power distribution and the rate of decay heat production, are all regulated by requirements in the Limiting Condition for Operation sections of the Technical Specifications. In addition, the fuel weight is implicitly included in the nuclear design analysis performed for each reactor operating cycle and used to evaluate conformance with established limits for Design Basis Events. For the slight weight increases reported by the licensee for the Cycle 8 fuel, and any similar possible small future fuel weight increases without a significant change in fuel design, there is no impact on the safety analysis. A significant change in the fuel design would be the subject of review and changes to the other governing Technical Specifications.

Safety Summary

We conclude that there will be no significant safety impact in deleting the maximum fuel weight from Technical Specification 5.3.1 for Unit 1 as we have recently done for Unit 2. We also find this action preferable to changing the specifications each cycle to accommodate the applicable weight, or to specifying an artificial upper value of the weight to bound future variations. Therefore, the proposed change is approved for Unit 1.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 offsite, 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.

Conclusion

We have 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 23, 1986

Principal Contributor:

E. Reeves