

September 12, 1988

Agcket No: 50-321

Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 157 TO FACILITY OPERATING LICENSE DPR-57 -
EDWIN I. HATCH NUCLEAR PLANT, UNIT 1 (TAC 68688)

The Commission has issued the enclosed Amendment No. 157 to Facility
Operating License DPR-57 for the Edwin I. Hatch Nuclear Plant, Unit 1.
The amendment consists of changes to the Technical Specifications (TS) in
response to your application dated June 20, 1988.

The amendment changes the TS to allow the use of General Electric 8X8EB fuel
and lead fuel assemblies produced by Advanced Nuclear Fuels.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will
be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Lawrence P. Crocker, Project Manager
Project Directorate II-3
Division of Reactor Projects-I/II

Enclosures:

1. Amendment No. 157 to DPR-57
2. Safety Evaluation

cc w/ enclosures:
See next page

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

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Docket No: 50-321

Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P. O. Box 4545
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Sincerely,

A handwritten signature in cursive script that reads "Lawrence P. Crocker".

Lawrence P. Crocker, Project Manager
Project Directorate II-3
Division of Reactor Projects-I/II

Enclosures:

1. Amendment No. 157 to DPR-57
2. Safety Evaluation

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See next page

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

Edwin I. Hatch Nuclear Plant,
Units Nos. 1 and 2

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Chairman
Appling County Commissioners
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Baxley, Georgia 31513



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

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
DOCKET NO. 50-321
EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 157
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, (the licensee) dated June 20, 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 set forth in 10 CFR Chapter I;
 - 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.

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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. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 157, 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 12, 1988

OFFICIAL RECORD COPY

LA:PDII-3
MRood
8/16/88

PM:PDII-3
LCrocker:sw
8/18/88

LEB
NRR:SRXB
WHodges
8/19/88

OGC-WF
8/24/88
D:PDII-3
DMatthews
8/31/88

ATTACHMENT TO LICENSE AMENDMENT NO. 157

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

| <u>Remove Page</u> | <u>Insert Page</u> |
|-------------------------|-------------------------|
| X | X |
| Xi | Xi |
| 3.11-1a | 3.11-1a |
| 3.11-2 | 3.11-2 |
| 3.11-3 | 3.11-3 |
| 3.11-4 | 3.11-4 |
| 3.11-4a | 3.11-4a |
| Figure 3.11-1 (Sheet 4) | Figure 3.11-1 (Sheet 4) |
| Figure 3.11-1 (Sheet 5) | Figure 3.11-1 (Sheet 5) |
| Figure 3.11-1 (Sheet 6) | Figure 3.11-1 (Sheet 6) |
| Figure 3.11-1 (Sheet 8) | Figure 3.11-1 (Sheet 8) |
| Figure 3.11-2 | Figure 3.11-2 |
| Figure 3.11-4 | Figure 3.11-4 |
| Figure 3.11-5 | Figure 3.11-5 |

LIST OF FIGURES

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| 2.1-1 | Reactor Vessel Water Levels |
| 4.1-1 | Graphical Aid for the Selection of an Adequate Interval Between Tests |
| 4.2-1 | System Unavailability |
| 3.4-1 | Sodium Pentaborate Solution Volume Versus Concentration Requirements |
| 3.4-2 | Sodium Pentaborate Solution Temperature Versus Concentration Requirements |
| 3.6-1 | Pressure versus Minimum Temperature for Pressure Tests Based on Surveillance Test Results |
| 3.6-2 | Pressure versus Minimum Temperature for Non-nuclear Heatup/Cooldown and Low-Power Physics Test |
| 3.6-3 | Pressure versus Minimum Temperature for Core Critical Operation other than Low-Power Physics Test (Includes 40°F Margin Required by 10 CFR 50 Appendix G) |
| 3.6-4 | Deleted |
| 3.6-5 | Power-Flow Operating Map with One Reactor Coolant System Recirculation Loop in Operation |
| 3.11-1 | (Sheet 1) Limiting Value for APLHGR (Fuel Types BP80RB265H, P80RB265H, BP80R284H, and P80RB284H) |
| 3.11-1 | (Sheet 2) Limiting Value for APLHGR (Fuel Types BP80RB283, P80RB283, BP80RB299, and P80RB299) |
| 3.11-1 | (Sheet 3) Limiting Value for APLHGR (Fuel Types BP80RB301L, P80RB301L, and 1987 Hatch LTAs) |
| 3.11-1 | (Sheet 4) Limiting Value for APLHGR (Fuel Type 9x9 LFA) |
| 3.11-1 | (Sheet 5) Limiting Value for APLHGR (Fuel Type B0296A) |
| 3.11-1 | (Sheet 6) Deleted. |
| 3.11-1 | (Sheet 7) MAPFAC _p (Power Dependent Adjustment Factors to MAPLHGRs) |
| 3.11-1 | (Sheet 8) MAPFAC _f (Flow Dependent Adjustment Factors to MAPLHGRs) |
| 3.11-2 | (Deleted) |
| 3.11-3 | MCPR _f (Flow Dependent Adjustment Factors for MCPRs) |
| 3.11-4 | MCPR Limit for All 8x8 and 9x9 Fuel Types for Rated Power and Rated Flow |

LIST OF FIGURES

| <u>Figure</u> | <u>Title</u> |
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| 3.11-6 | K_p (Power Dependent Adjustment Factors for MCPs) |
| 3.15-1 | Unrestricted Area Boundary |

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.11.8. Linear Heat Generation Rate (LHGR) 4.11.8. Linear Heat Generation Rate (LHGR)

During power operation, the LHGR shall not exceed the limiting value of 14.4 kW/ft for GEBx8EB fuel or the limiting value of 13.4 kW/ft for any other 8 x 8 fuel. If at any time during

The LHGR shall be checked daily during reactor operation at $\geq 25\%$ rated thermal power.

3.11.B. Linear Heat Generation Rate (LHGR)
(Continued)

operation it is determined by normal surveillance that the limiting value for LHGR is being exceeded, action shall be initiated within 15 minutes to restore operation to within the prescribed limits. If the LHGR is not returned to within the prescribed limits within 2 hours, then reduce reactor power to less than 25 percent of rated thermal power within the next 4 hours. If the limiting condition for operation is restored prior to expiration of the specified time interval, then further progression to less than 25 percent of rated thermal power is not required.

C. Minimum Critical Power Ratio (MCPR)

The minimum critical power ratio (MCPR) for two-loop operation shall be equal to or greater than the operating limit MCPR (OLMCPR), which is a function of scram time, core power, and core flow. For 25 percent \leq power < 30 percent, the OLMCPR is given in Figure 3.11-6. For power \geq 30 percent, the OLMCPR is the greater of either:

1. The applicable limit determined from Figure 3.11-3, or
2. The applicable limit from Figure 3.11-4 multiplied by the K_p factor determined from Figure 3.11-6, where τ is the relative measured scram speed with respect to Option A and Option B scram speeds. If τ is determined to be less than zero, then the OLMCPR is evaluated at $\tau=0$.

4.11.C.1. Minimum Critical Power Ratio (MCPR)

MCPR shall be determined to be equal to or greater than the applicable limit, daily during reactor power operation at \geq 25-percent rated thermal power and following any change in power level or distribution that would cause operation with a limiting control rod pattern as described in the bases for Specification 3.3.F.

4.11.C.2. Minimum Critical Power Ratio Limit

The MCPR limit at rated flow and rated power shall be determined for each fuel type, as appropriate from Figure 3.11-4, using:

- a. $\tau=1.0$ prior to initial scram time measurements for the cycle, performed in accordance with Specification 4.3.C.2.a.

or

- b. τ is determined from scram time measurements performed in accordance with Specification 4.3.C.2.

The determination of the limit must be completed within 72 hours of the conclusion of each scram time surveillance test required by Specification 4.3.C.2.

3.11. FUEL RODS

A. Average Planar Linear Heat Generation Rate (APLHGR)

This specification assures that the peak cladding temperature following the postulated design basis loss-of-coolant accident (LOCA) will not exceed the limit specified in 10 CFR 50.46 even considering the postulated effects of fuel pellet densification.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average heat generation rate of all the rods of a fuel assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within an assembly. Since expected local variations in power distribution within a fuel assembly affect the calculated peak clad temperature by less than $\pm 20^\circ\text{F}$ relative to the peak temperature for a typical fuel design, the limit on the average linear heat generation rate is sufficient to assure that calculated temperatures conform to 10 CFR 50.46. The limiting value for APLHGR at rated conditions is shown in figures 3.11-1, sheets 1 thru 6.

For convenience, the APLHGR limits are reported in the units of kW/ft, which is the bundle planar power normalized to the number of fueled rods. Figure 3.11-1 (Sheet 4) shows that the 9x9 LFAs have the same planar power limits as the GE B/P80RB284H fuel; however, on a kW/ft basis, the APLHGR limits for the LFAs are 62/79 times the B/P80RB284H limits.

The actual APLHGR limits for GE8x8EB fuel are lattice-type dependent and are explicitly modeled in the process computer. At each exposure, the Technical Specifications APLHGR limit is defined as the most limiting value of all the enriched lattices. The Technical Specifications APLHGR limits will be used for manual calculations.

The calculational procedure used to establish the APLHGR shown in figures 3.11-1, sheets 1 thru 6, is based on a LOCA analysis. The analysis was performed using General Electric (GE) calculational models which are consistent with the requirements of Appendix K to 10 CFR 50. The LOCA analysis was performed utilizing the new improved calculational model, SAFER/GESTR-LOCA. The analysis demonstrated that loss-of-coolant concerns do not limit the operation of the fuel since margin to the 2200°F limit was demonstrated (Reference 9). Therefore, the APLHGR limits for the fuel types shown in figure 3.11-1 are derived to assure that the fuel thermal-mechanical design criteria are met.

A list of the significant plant input parameters to the LOCA analysis is presented in tables 4-1 and 4-2 of Reference 9. Further discussion of the APLHGR bases is found in NEDC-30474-p(*).

A flow dependent correction factor incorporated into figure 3.11-1 (sheet 8) is applied to the rated conditions APLHGR to assure that the 2200°F PCT limit is complied with during LOCA initiated from less than rated core flow. In addition, other power and flow dependent corrections given in figure 3.11-1 (sheets 7 and 8) are applied to the rated conditions APLHGR limits to assure that the fuel thermal-mechanical design criteria are met during abnormal transients initiated from off-rated conditions for two-loop and single-loop operations, References 2 and 8. For single-loop operation, a 0.75 multiplication factor to APLHGR limits for all fuel bundle types conservatively bounds that required by Reference 2. For single-loop operation (SLO), the most restrictive of the SLO and ARTS(*) MAPLHGRS will define the Limiting Condition for Operation.

3.11.B. Linear Heat Generation Rate (LHGR)

This specification assures that the LHGR in any rod is less than the design linear heat generation if fuel pellet densification is postulated. For LHGR to be a limiting value below 25-percent rated thermal power, the ratio of peak LHGR to core average LHGR would have to be greater than 9.6, which is precluded by a considerable margin when employing any permissible control rod pattern.

C. Minimum Critical Power Ratio (MCPR)

The required operating limit MCPR as specified in Specification 3.11.C. is derived from the established fuel cladding integrity Safety Limit MCPR and an analysis of abnormal operational transients presented in References 1, 2, and 8.

Various transient events will reduce the MCPR below the operating MCPR. To assure that the fuel cladding integrity safety limit is not violated during anticipated abnormal operational transients, the most limiting transients have been analyzed to determine which one results in the largest reduction in critical power ratio (Δ MCPR). Addition of the largest Δ MCPR to the safety limit MCPR gives the minimum operating limit MCPR to avoid violation of the safety limit should the most limiting transient occur. The type of transients evaluated were loss of flow, increase in pressure and power, positive reactivity insertion, and coolant temperature decrease.

3.11.C. Minimum Critical Power Ratio (MCPR) (Continued)

According to Figure 3.11-4 the 100-percent power, 100-percent flow operating limit MCPR (OLMCPR) depends on the average scram time, τ , of the control rods, where:

$$t = 0 \text{ or } \frac{\tau_{ave} - \tau_B}{\tau_A - \tau_B}, \text{ whichever is greater}$$

where: $\tau_A = 1.096$ sec (Specification 3.3.C.2.a, scram time limit to notch 36)

$$\tau_B = \mu + 1.65 \left[\frac{N_1}{\sum_{i=1}^n N_i} \right]^{1/2} \sigma \quad [\text{Reference 7}]$$

where: $\mu = 0.822$ sec (mean scram time used in the transient analysis)

$\sigma = .018$ sec (standard deviation of μ)

$$\tau_{ave} = \left[\frac{\sum_{i=1}^n N_i \tau_i}{\sum_{i=1}^n N_i} \right]$$

where: n = number of surveillance tests performed to date in the cycle

N_i = number of active control rods measured in the i th surveillance test

τ_i = average scram time to notch 36 of all rods in the i th surveillance test

N_1 = total number of active rods measured in 4.3.C.2.a

The purpose of the $MCPR_f$, and the K_p of Figures 3.11-3 and 3.11-6, respectively, is to define operating limits at other than rated core flow and power conditions. At less than 100 percent of rated flow and power, the required MCPR is the larger value of the $MCPR_f$ and $MCPR_p$ at the existing core flow and power state. The $MCPR_f$ s are established to protect the core from inadvertent core flow increases such that the 99.9-percent MCPR limit requirement can be assured.

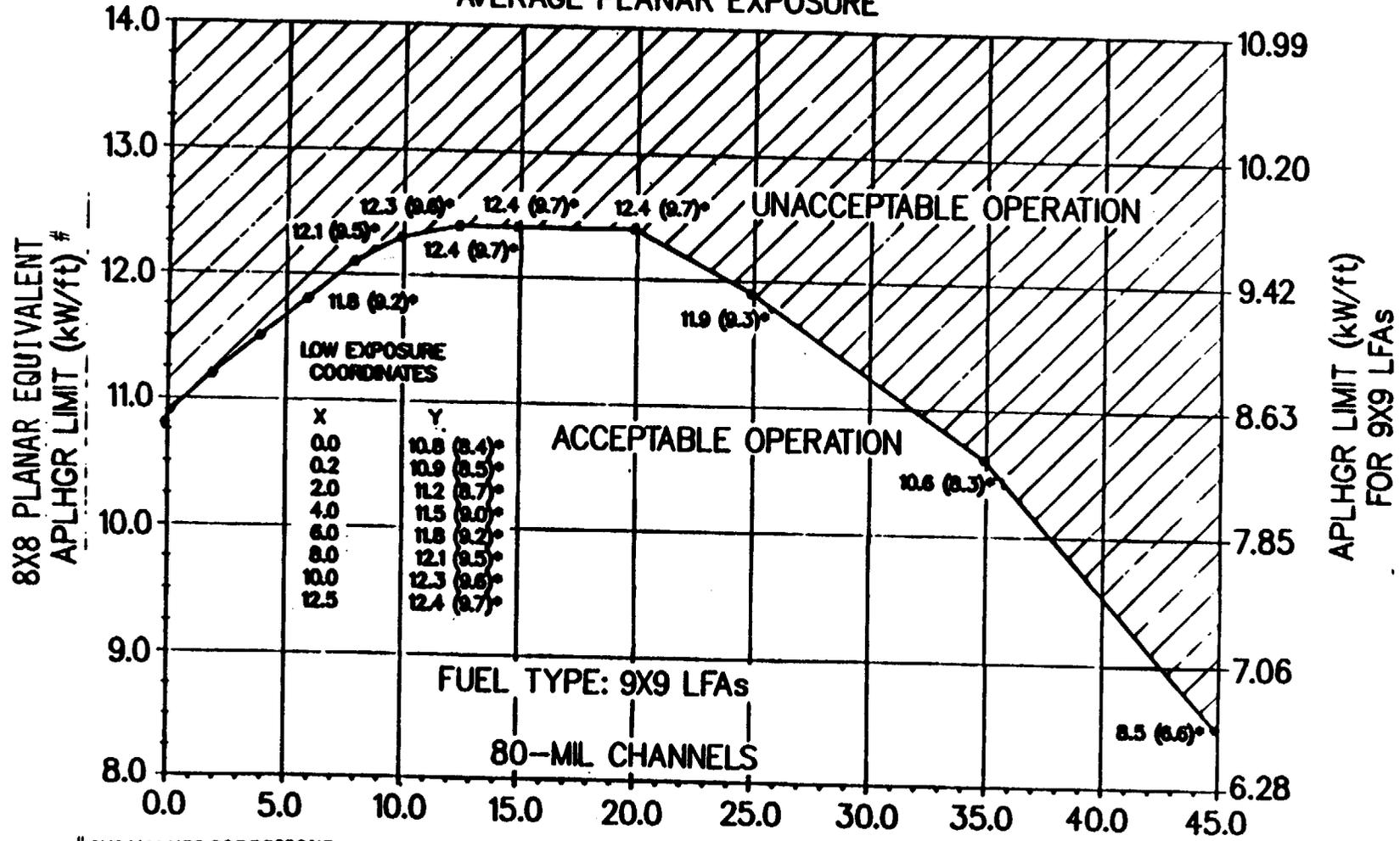
The $MCPR_f$ s were calculated such that for the maximum core flow rate and the corresponding THERMAL POWER along the 105 percent of rated steam flow control line, the limiting bundle's relative power was adjusted until the MCPR was slightly above the Safety Limit. Using this relative bundle power, the MCPRs were calculated at different points along the 105 percent of rated steam flow control line corresponding to different core flows. The calculated MCPR at a given point of core flow is defined as $MCPR_f$.

The core power dependent MCPR operating limit $MCPR_p$ is the power rated flow MCPR operating limit multiplied by the K_p factor given in Figure 3.11-6.

The K_p s are established to protect the core from transients other than core flow increases, including the localized event such as rod withdrawal error. The K_p s were determined based upon the most limiting transient at the given core power level. (For further information on MCPR operating limits for off-rated conditions, reference NEDC-30474-P.(e))

When operating with a single-recirculation pump, the MCPR Safety and Operating Limits are increased by an amount of 0.01 over the comparable values for two-recirculation pump operation.(z)

AVERAGE PLANAR LINEAR HEAT GENERATION RATE vs
AVERAGE PLANAR EXPOSURE



8x8 VALUES CORRESPOND TO B/P8DRB284H FUEL

*() - APLHGR LIMITS FOR 9 X 9 LFAs

AVERAGE PLANAR EXPOSURE (GWd/st)

FIGURE 3.11-1 (SHEET 4)

AVERAGE PLANAR LINEAR HEAT GENERATION RATE LIMIT vs AVERAGE PLANAR EXPOSURE

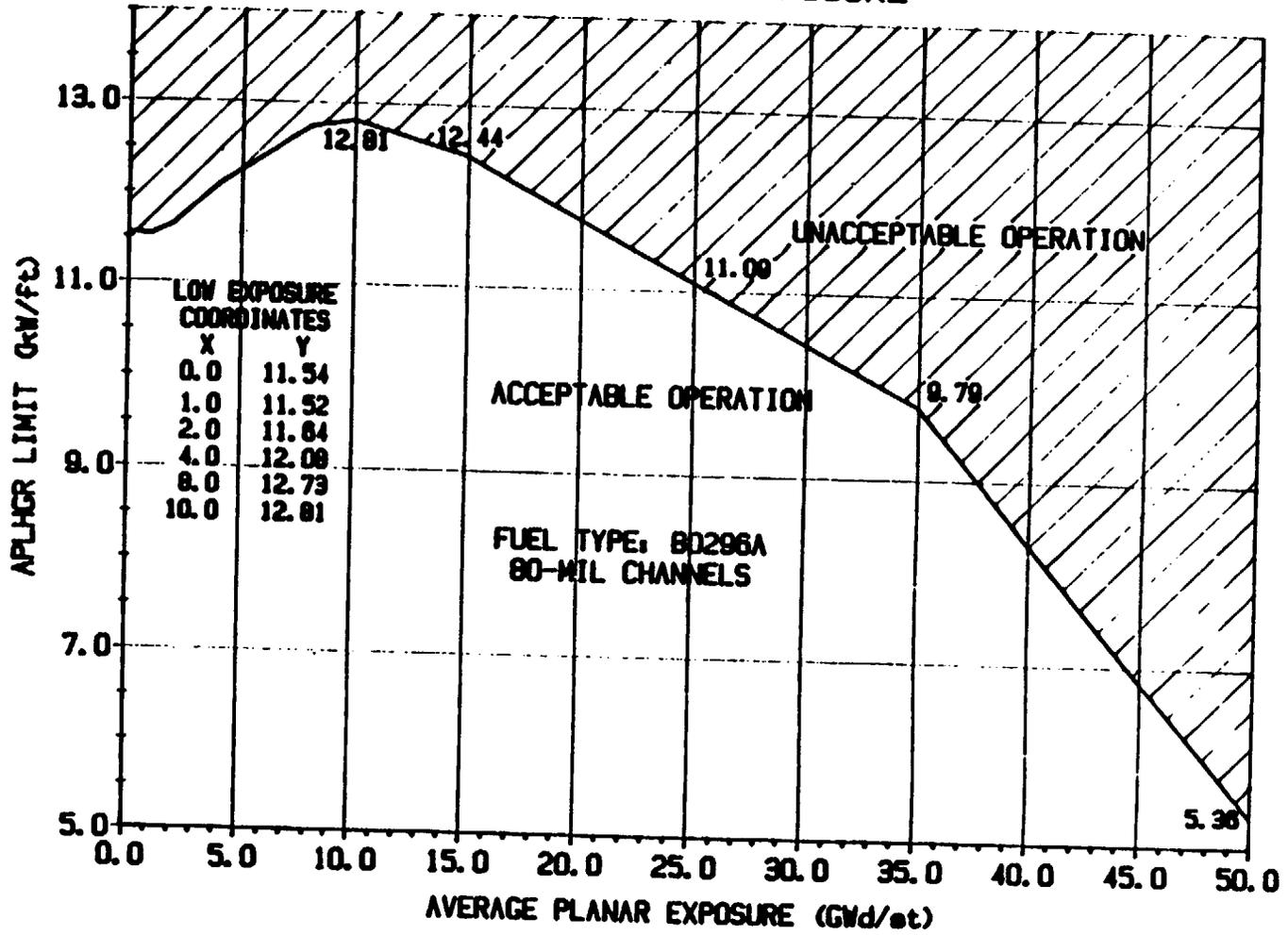


FIGURE 3.11-1 (SHEET 5)

NOTE: THIS IS THE APLHGR LIMIT FOR THE MOST LIMITING LATTICE AS A FUNCTION OF AVERAGE PLANAR EXPOSURE.

Figure 3.11-1 (Sheet 6) (Deleted)

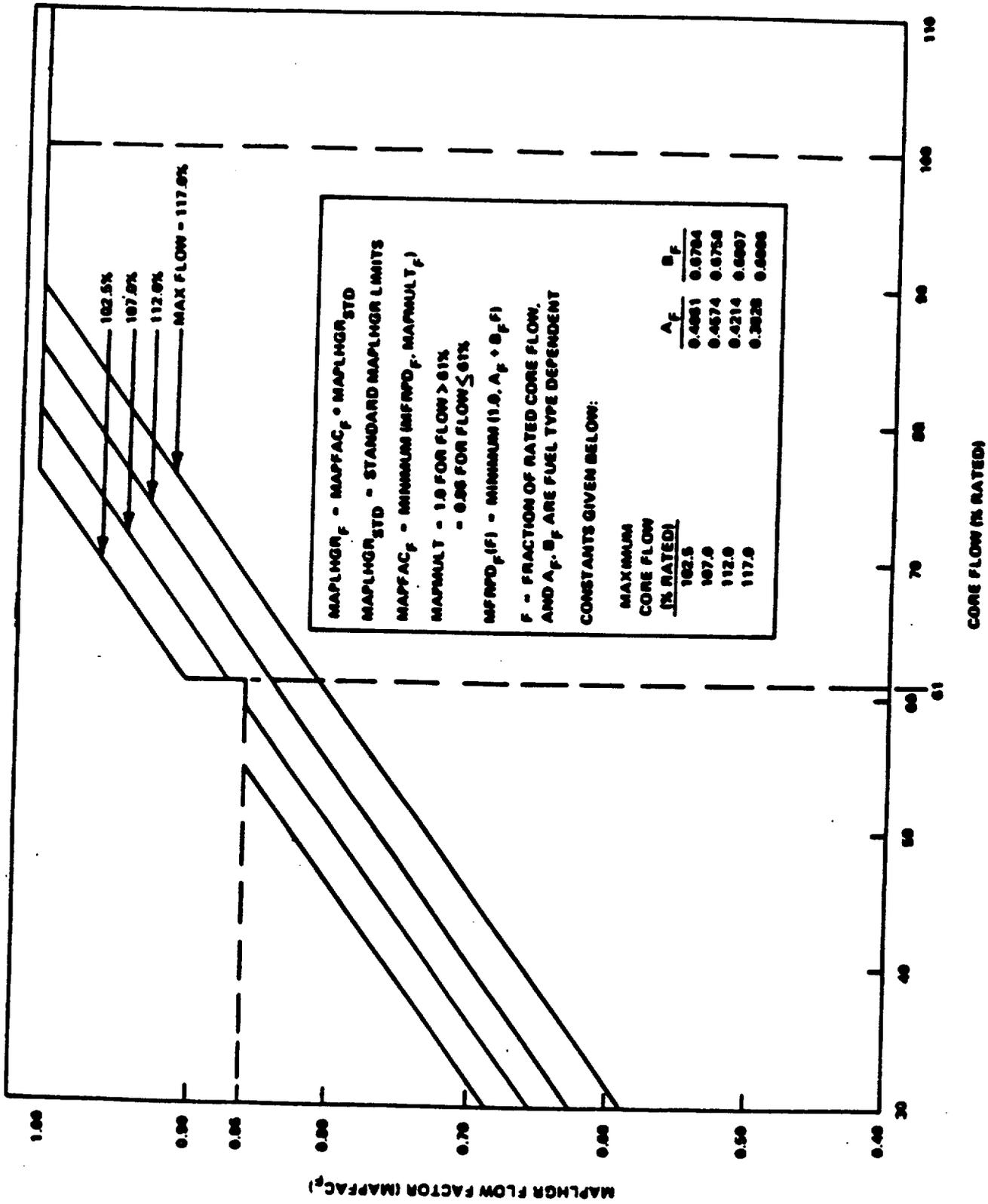


FIGURE 3.11-2 (Deleted)

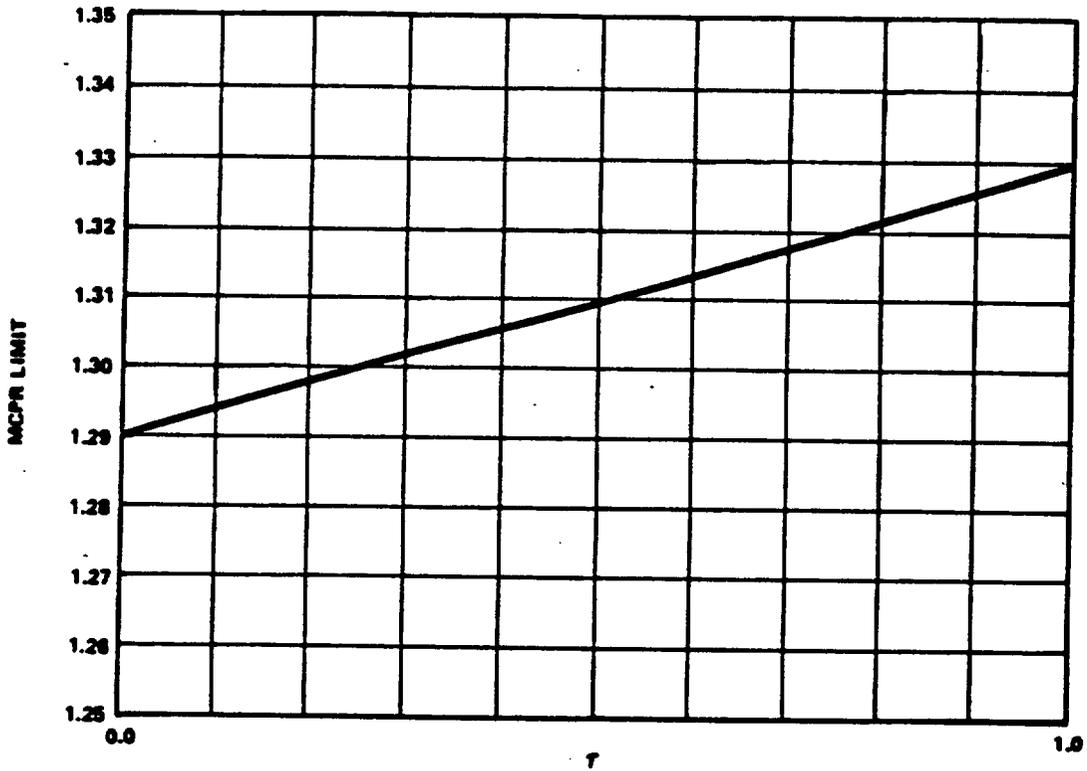


FIGURE 3.11-4
MCPR LIMIT ALL 8X8 AND 9X9 FUEL TYPES
FOR RATED POWER AND RATED FLOW

FIGURE 3.11-5 (Deleted)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 157 TO

FACILITY OPERATING LICENSE DPR-57

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-321

1.0 INTRODUCTION

By letter dated June 20, 1988, Georgia Power Company (the licensee) requested changes to the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Unit 1. The changes would allow the use in Hatch Unit 1 of General Electric (GE) GE8x8EB fuel and Lead Fuel Assemblies (LFAs) produced by Advanced Nuclear Fuels (ANF). Specifically, the proposed changes would:

- a. Add new Average Planar Linear Heat Generation Rate (APLHGR) limits and a Linear Heat Generation Rate (LHGR) limit for the new GE8x8EB fuel type BD296A.
- b. Add new APLHGR limits for the ANF 9x9 LFAs.
- c. Revise the Bases section of the TS to include information on the new APLHGR and LHGR limits.
- d. Revise the Minimum Critical Power Ratio (MCPR) and flow-dependent APLHGR limit multiplier ($MAPFAC_F$) figures to show their applicability to the new fuel types.
- e. Remove from the TS information regarding fuel types no longer used in the Unit 1 core, and make several editorial corrections.

2.0 EVALUATION

- a. Add new APLHGR and LHGR limits for GE8x8EB type BD296A fuel.

The GE8x8EB fuel type BD296A is a new fuel type not previously used at the Hatch plant. The proposed APLHGR and LHGR limits for this fuel were evaluated by GE using NRC-approved methods documented in the "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-8 (GESTAR-II). Calculations using the "Edwin I. Hatch Nuclear Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-

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of-Coolant Accident (LOCA) Analysis," NEDC-31376P, demonstrated that the power level of GE8x8EB fuel types will not be limited by LOCA considerations as long as approved LHGR limits are met. A description of the BD296A fuel is presented in a new Appendix E to NEDC-31376P, provided as an enclosure to the licensee's June 20, 1988 submittal. This description is acceptable. The BD296A fuel includes more than one lattice type, and each lattice type has a different exposure-dependent APLHGR limit. The TS APLHGR limits for the BD296A fuel will be those for the most limiting enriched lattice in that assembly.

The proposed LHGR limit for the GE8x8EB fuel is 14.4 kw/ft (rather than the 13.4 kw/ft for other GE fuel). This LHGR has been reviewed and accepted for this fuel in the GE extended burnup fuel review (see letter and attachment from C. Thomas, NRC, to J. Charnley, G. E., dated May 28, 1985, "Acceptance for Referencing of Licensing Topical Report NEDE-24011-P-A-6, Amendment 10", particularly References 18 and 19 therein. These references are responses to questions and presentations relating to the GE8x8EB fuel which provide information on the 14.4 kw/ft LHGR). This LHGR is acceptable for the GE8x8EB fuel type BD296A to be installed in Hatch Unit 1. The LHGR limit of 14.4 kw/ft for the GE8x8EB fuel, in conjunction with the APLHGR limit, ensures that acceptable fuel mechanical design limits given in GESTAR-II are met.

The calculations for the APLHGR and LHGR limits are consistent with NRC-approved methodology and demonstrate that Unit 1 will remain in conformance with the acceptance criteria of 10 CFR 50.46 and Appendix K. Accordingly, we find these limits are acceptable.

A new TS Figure 3.11-1 (Sheet 5) is added to depict the APLHGR limits for the BD296A fuel. This change is acceptable.

b. Add new APLHGR limits for the ANF 9x9 LFAs.

The ANF 9x9 LFAs have been evaluated by ANF for use in the Hatch reactors. The analysis of these fuel elements is presented in an ANF report, "Hatch 9x9 Lead Fuel Assemblies, Safety Analysis Report," ANF-87-95, Revision 3, 29 March 1988, which was submitted as an enclosure to the licensee's June 20, 1988 request for license amendment. These fuel assemblies are designed to be neutronically similar to the GE B/P8DRB284H fuel such that the existing APLHGR limit (when adjusted to account for the different number of rods) and MCPR thermal limits for B/P8DRB284H fuel are applicable also to the 9x9 LFAs. Analyses of anticipated operational occurrences and postulated accidents presented in the ANF Report, ANF-87-95, show the LFAs will provide equivalent or improved performance as compared with the GE P8DRB284H fuel. The staff has previously evaluated the ANF 9x9 fuel, and approved its use in Hatch Unit 2 by Amendment No. 89 to the Unit 2 TS. On this basis, we find the ANF 9x9 LFAs acceptable for use also in Hatch Unit 1. A new TS Figure 3.11-1 (Sheet 4) is added to depict the APLHGR limits for 9x9 LFAs and is acceptable.

The licensee intends to load the LFAs in core locations that are analyzed to have sufficient margin so that the LFAs are not expected to be the limiting assemblies in the core on either a nodal or bundle power basis. We find this loading strategy to be conservative and acceptable.

c. Revise the Bases section to include information on the new APLHGR and LHGR limits.

Two new paragraphs would be added to TS 3.11.A to describe the planar power limits for the 9x9 LFAs and to describe the lattice-type dependency of the new GE8x8EB fuel. TS 3.11.B would be modified to delete material regarding 7x7 fuel which is no longer used at the plant (see item e following). TS 3.11.C would be modified to delete a reference to TS Figure 3.11.5 which pertained to 7x7 fuel and which would be deleted by this amendment (see item e below).

These changes make the Bases section consistent with the changes in fuel types that would be authorized by this amendment and are, therefore, acceptable.

d. Revise the MCPR and $MAPFAC_F$ figures to show their applicability to the new fuel types.

The legend on TS Figure 3.11-1 (Sheet 8) would be revised to eliminate specific reference to fuel type, since the limits are applicable to all fuel types now in use at the plant as well as for the proposed GE8x8EB fuel and the ANF 9x9 LFAs. Coefficients on the existing figure which refer to the older 7x7, 8x8, and 8x8R fuel types are deleted since these fuel types are no longer used at the plant. The resultant proposed Figure 3.11-1 (Sheet 8) would have no fuel type labels since the coefficients shown on the figure are applicable to all fuel used in the Unit 1 reactor core. This proposed change simplifies the figure and is acceptable.

TS Figure 3.11-4 would be modified to indicate that the MCPR limit applies to all 8x8 fuel types and to all 9x9 fuel types. The MCPR safety limits are valid for the GE8x8EB fuel types according to GESTAR-II. The existing MCPR operating limits are expected to conservatively bound the results of the Unit 1 reload transient analyses. The licensee has committed to verify that the MCPR limits do, in fact, conservatively bound the analysis results for each cycle. On this basis, we find that the modified TS Figure 3.11-4 will present MCPR limits for all fuel in use at the plant, and the change is, therefore, acceptable.

e. Remove obsolete information from the TS and make several editorial changes.

The older 7x7, 8x8, and 8x8R fuel types will no longer be used at the plant. As a result, the licensee proposes to remove information pertaining to these fuel types. References to the 7x7 fuel would be deleted from TS 3.11.B and TS 3.11.C, as discussed in item c above, and from the corresponding Bases. TS Figures 3.11-2 and 3.11-5, which pertain to 7x7 fuel, would also be deleted. As discussed in item d, above, TS Figure 3.11-1 (Sheet 8) also would be modified to remove references and data pertaining to the fuel types no longer used. Pages x and xi would be modified to take account of the deletions and additions to the TS figures as noted herein. All of these changes are editorial in nature and are acceptable.

In addition, several other editorial type changes are proposed to TS pages x and xi to correct errors in figure titles and numbers. These changes make the TS List of Figures consistent with the actual figures in the body of the TS, and are acceptable. Similarly, TS 3/4.C would be modified to correct the designation of figure numbers. These corrections also are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes 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 offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the 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 the amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register on August 10, 1988 (53 FR 30132), and consulted with the state of Georgia. No public comments were received, and the state of Georgia did not have any comments.

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

Principal Contributor: Lawrence P. Crocker, PDII-3/DRP-I/II

Dated: September 12, 1988

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AMENDMENT NO. 157 TO FACILITY OPERATING LICENSE DPR-57, EDWIN I. HATCH, UNIT 1

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