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Docket No. 50-321

Georgia Power Company  
 Oglethorpe Electric Membership Corporation  
 Municipal Electric Association of Georgia  
 City of Dalton, Georgia  
 ATTN: Mr. I. S. Mitchell, III  
 Vice President and Secretary  
 Georgia Power Company  
 Atlanta, Georgia 30302

Gentlemen:

The Commission has issued the enclosed Amendment No. 44 to Facility Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant Unit No. 1. The amendment consists of changes to the Environmental Technical Specifications in response to your application dated August 2, 1976.

The amendment to the Environmental Technical Specifications requires operation of the hydrogen monitor in the offgas system and an alarm setpoint of 4% hydrogen concentration by volume.

Copies of the Safety Evaluation and Environmental Impact Appraisal and the Notice of Issuance and Negative Declaration are also enclosed.

Sincerely,

Original signed by  
 George Lear, Chief  
 Operating Reactors Branch #3  
 Division of Operating Reactors

Enclosures:

1. Amendment No. 44
2. Safety Evaluation and Environmental Impact Appraisal
3. Issuance of Notice and Negative Declaration

cc: see next page

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OFFICE →	ORB#3	ORB#3	OELD	ORB#3		
SURNAME →	CParrish	SNowicki	B. Smith	GLear		
DATE →	9/26/77	9/26/77	9/28/77	10/4/77		



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

October 4, 1977

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Sincerely,

A handwritten signature in cursive script that reads "George Leav".

George Leav, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

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1. Amendment No. 44
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3. Issuance of Notice and Negative Declaration

cc: see next page

Georgia Power Company  
Oglethorpe Electric Membership Corporation  
Municipal Electric Association of Georgia  
City of Dalton, Georgia

- 2 -

cc:

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Vice President  
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Birmingham, Alabama 35202

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Region IV Office  
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Atlanta, Georgia 30308

Mr. Harry Majors  
Southern Services, Inc.  
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Birmingham, Alabama 35202

Appling County Public Library  
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Mr. John Robins  
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Appling County Commissioners  
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Baxley, Georgia 31513

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Washington, D. C. 20460



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

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 44  
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Georgia Power Company, Oglethorpe Electric Membership Corporation, Municipal Electric Association of Georgia and City of Dalton, Georgia, (the licensees) dated August 2, 1976, 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.

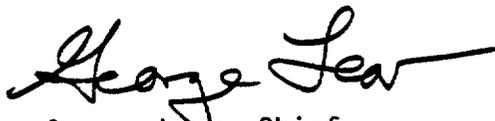
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 44, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 4, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 44

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix "B" Technical Specifications with the enclosed pages. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Remove

2-15  
      

Replace

2-15  
2-15a

## HNP-ETS

offgas from the main condenser vacuum system and the activity measured downstream of the main condenser vacuum system prior to holdup and at a point upstream of the point of release.

- g. The reactor containment shall be purged through the standby gas treatment system.
- h. (1) Potentially-explosive gas mixtures of hydrogen and oxygen contained in the offgas system downstream of the recombiners shall be continuously monitored during reactor power operation for hydrogen concentration. The hydrogen gas monitoring system shall provide alarms locally and in the control room at a set point of 4% hydrogen concentration by volume. At least one continuous gas monitoring system and its associated alarm system shall be operable during reactor power operation. If both of the hydrogen gas monitors or both of the associated alarm systems are inoperable, reactor operation may be continued for a period of time not to exceed two weeks provided that either (a) grab samples are taken and analyzed for hydrogen concentration once every 4 hours, or (b) using a temporary hydrogen gas analyzer installed in the offgas system line downstream of the recombiner, hydrogen concentration readings are taken and logged every 4 hours.
- (2) The hydrogen concentration in the offgas system downstream of the recombiners shall not exceed 4% concentration by volume. If, at any time during reactor power operation, it is determined that the hydrogen concentration limit is being exceeded, action shall be initiated within 4 hours to return the hydrogen concentration to within the prescribed limit. If the hydrogen concentration is not reduced to less than 4% by volume within 24 hours, the offgas system flow shall be stopped.
- (3) The installed hydrogen monitoring systems shall have daily sensor checks, monthly functional checks, and quarterly calibrations. The portable hydrogen gas analyzer shall be calibrated immediately prior to installation and shall be subject to daily sensor checks, monthly functional checks, and quarterly calibrations until removed from service.

#### 2.4.4 Specifications for Gaseous Waste Sampling and Monitoring

- a. Plant records shall be maintained and reports of the sampling and analysis results shall be submitted in accordance with subsection 5.6.1 of these specifications. Estimates of the total error associated with each reported value should be included.
- b. Gaseous releases to the environment, except as noted in Specification 2.4.4.c below, shall be continuously monitored for gross radioactivity and the flow measured and recorded. Whenever these monitors are inoperable, grab samples shall be taken and analyzed daily for gross radioactivity. If these monitors are inoperable for more than seven days, these releases shall be terminated.
- c. An isotopic analysis shall be made of a representative sample of gaseous activity, excluding tritium, at the discharge of the steam jet air ejectors and at a point prior to dilution and discharge
  - (1) Within one month of initial criticality
  - (2) At least monthly thereafter
  - (3) Following each refueling outage
  - (4) If the gaseous waste monitors indicate an increase of greater than 50% in the steady state fission gas release after factoring out increases due to power changes.
- d. All waste gas monitors shall be calibrated at least quarterly by means of a known radioactive source which has been calibrated to a National Bureau of Standards source. Each monitor shall have a functional test at least monthly and an instrument check at least daily.



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

SAFETY EVALUATION AND ENVIRONMENTAL IMPACT APPRAISAL

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. DPR-57

GEORGIA POWER COMPANY

OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION

MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA

CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1

DOCKET NO. 50-321

Introduction

By letter dated August 2, 1976, Georgia Power Company (GPC) requested an amendment to Facility Operating License No. DPR-57 for Edwin I. Hatch Nuclear Plant Unit No. 1. The amendment would modify the Environmental Technical Specifications which requires continuous operation of the hydrogen monitor in the offgas system and an alarm setpoint of 4% hydrogen concentration by volume.

Discussion

The current Environmental Technical Specification 2.4.3.h requires operability of a hydrogen monitor in the offgas system with an alarm setpoint of 4% hydrogen, at which time operators are to stop offgas flow. GPC proposed that this Technical Specification is unnecessary because the offgas system is designed to preclude ignition sources and portions of the system downstream of the dilution zone are designed to withstand internal detonation with no loss of integrity of the pressure boundary. Furthermore significant malfunction of the recombiner will promptly be reflected in measurements of flow, pressure drop and temperature readings.

## I. Safety Evaluation

### Evaluation

Experience to date with existing offgas systems and the recombiners shows that not enough is known about ignition sources to disallow detonation of explosive mixtures. In fact approximately 12 such detonations have occurred in the last two years with other operating offgas systems designed to preclude ignition. Because of the uncertainty in the probability of detonation GPC has agreed to retain hydrogen monitoring and alarm capabilities in the offgas system.

### Summary

Since the hydrogen monitoring, alarm, and instrumentation calibration requirements have been retained and in fact have been modified to be more specifically in keeping with the staff position, we consider this change to be an increase in plant safety and reliability and therefore the change is acceptable.

### Conclusions on Safety

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

## II. Environmental Impact Appraisal

### Appraisal

Even though portions of the offgas system downstream of the steam dilution zone are designed to withstand an internal hydrogen detonation, the consequences of the rupture of the pressure boundary have not been analyzed. Since the consequences of an offgas system rupture is uncertain, GPC has agreed to retain hydrogen monitoring and alarm capabilities and, in addition, we

have modified Specification 2.4.3.h to define more specific requirements on monitoring, alarms, and action to be taken with the loss of hydrogen monitoring capability. We have discussed these modifications with the GPC staff and they have agreed to implement them.

Conclusions and Basis for Negative Declaration

On the basis of the foregoing analysis, it is concluded that there will be no environmental impact attributable to the proposed action other than has already been predicted and described in the Commission's Final Environmental Statement for Edwin I. Hatch Nuclear Plant, Units Nos. 1 and 2 (October 1972). Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need to prepared and that a negative declaration to this effect is appropriate.

Dated: October 4, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-321

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION  
MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA  
CITY OF DALTON, GEORGIA

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

AND NEGATIVE DECLARATION

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 44 to Facility Operating License No. DPR-57 issued to Georgia Power Company, Oglethorpe Electric Membership Corporation, Municipal Electric Association of Georgia and City of Dalton, Georgia, which revised Technical Specifications for operation of the Edwin I. Hatch Nuclear Plant, Unit No. 1, located in Appling County, Georgia. The amendment is effective as of its date of issuance.

The amendment consists of changes to the Environmental Technical Specifications which requires operation of the hydrogen monitor in the offgas system and an alarm setpoint of 4% hydrogen concentration by volume.

The application for the amendment 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 amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has prepared an environmental impact appraisal for the revised Technical Specifications and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility dated October 1972.

For further details with respect to this action, see (1) the application for amendment dated August 2, 1977, (2) Amendment No. 44 to License No. DPR-57, and (3) the Commission's related Safety Evaluation and Environmental Impact Appraisal. 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 Appling County Public Library, Parker Street, Baxley, Georgia 31513. 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 Operating Reactors.

Dated at Bethesda, Maryland this 4th day of October 1977.



George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors