

May 8, 1989

Docket No. 50-498

Mr. J. H. Goldberg  
Group Vice-President, Nuclear  
Houston Lighting & Power Company  
P. O. Box 1700  
Houston, Texas 77001

Dear Mr. Goldberg:

SUBJECT: ISSUANCE OF AMENDMENT NO. 8 TO FACILITY OPERATING LICENSE  
NPF-76 - SOUTH TEXAS PROJECT, UNIT 1 (TAC NO. 67423)

The Commission has issued the enclosed Amendment No. 8 to Facility Operating License No. NPF-76 for the South Texas Project, Unit 1. The amendment consists of changes to the plant and Final Safety Analysis Report (FSAR) in response to your application dated February 24, 1988, which identified the change as an unreviewed safety question.

The amendment modifies the Engineered Safety Feature Actuation System (ESFAS) logic such that failure of the control room/electrical auxiliary building ventilation radiation monitors, spent fuel pool radiation monitors and reactor containment building purge radiation monitors will be annunciated in the control room and only a high radiation signal would cause a heating, ventilation, and air conditioning (HVAC) Engineered Safety Feature (ESF) actuation.

This amendment is being issued pursuant to the requirements of 10 CFR 50.59(c) because the review by Houston Lighting & Power Company identified the change as an unreviewed safety question. No change to the Technical Specifications is required by this amendment.

A copy of the Safety Evaluation and the Notice of Issuance supporting the amendment are enclosed.

Sincerely,

/s/

George F. Dick, Project Manager  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

1. Safety Evaluation
2. Notice of Issuance

cc w/enclosures:

See next page

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\*See previous page for concurrences.

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*Handwritten initials and date:*  
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UNITED STATES  
CLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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NPF-76 - SOUTH TEXAS PROJECT, UNIT 1 (TAC NO. 67423)

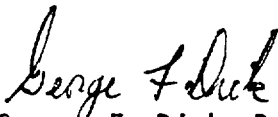
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Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

1. Safety Evaluation
2. Notice of Issuance

cc w/enclosures:  
See next page

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Mr. J. H. Goldberg  
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- 2 -

South Texas Project

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Wadsworth, Texas 77483



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

HOUSTON LIGHTING & POWER COMPANY  
CITY PUBLIC SERVICE BOARD OF SAN ANTONIO  
CENTRAL POWER AND LIGHT COMPANY  
CITY OF AUSTIN, TEXAS  
DOCKET NO. 50-498  
SOUTH TEXAS PROJECT, UNIT 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8  
License No. NPF-76

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Houston Lighting & Power Company\* (HL&P) acting on behalf of itself and for the City Public Service Board of San Antonio (CPS), Central Power and Light Company (CPL), and City of Austin, Texas (COA) (the licensees) dated February 24, 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, as amended, 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.

\*Houston Lighting & Power Company is authorized to act for the City Public Service Board of San Antonio, Central Power and Light Company and City of Austin, Texas and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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2. Accordingly, the license is being amended by the approval of the licensee's application dated February 24, 1988.
3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Jose A. Calvo*

Jose A. Calvo, Director  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Date of Issuance: May 8, 1989



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 8 TO

FACILITY OPERATING LICENSE NO. NPF-76

HOUSTON LIGHTING & POWER COMPANY

CITY PUBLIC SERVICE BOARD OF SAN ANTONIO

CENTRAL POWER AND LIGHT COMPANY

CITY OF AUSTIN, TEXAS

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

1.0 INTRODUCTION

By application dated February 24, 1988, Houston Lighting & Power Company, et. al., (HL&P or the licensee) requested changes to the plant and Final Safety Analysis Report (FSAR) for South Texas Project, Unit 1. The proposed change would modify the Engineered Safety Feature Actuation System (ESFAS) logic such that failure of the control room/electrical auxiliary building ventilation monitors, spent fuel pool monitors, and reactor containment building purge monitors will be annunciated in the control room and only a high radiation signal would cause a heating, ventilation and air conditioning (HVAC) Engineered Safety Feature (ESF) actuation. The proposed change would reduce the number of unnecessary ESF actuations.

2.0 DISCUSSION

This amendment is being issued pursuant to the requirements of 10 CFR 50.59(c) because HL&P identified the change as an unreviewed safety question. No change to the Technical Specifications is required by this amendment.

3.0 EVALUATION

Currently, ESF actuation will occur automatically upon either failure of radiation monitor or a high radiation signal in either of two redundant monitors. These dual monitors, located in the control room/electrical auxiliary building, the spent fuel storage pool area and the reactor building purge line, are used to monitor the ventilation air steam. In each case, one monitor is assigned to safety train A, and the other train C. Under the proposed change, the control room ESFs will still actuate automatically upon sensing a high radiation signal from either of the redundant monitors in each of the three areas, but automatic ESF actuation will not occur upon failure of a monitor. Monitor failure will be annunciated in the control room with three separate annunciators.

Technical Specification Table 3.3-3 specifies that the minimum number of radiation monitoring channels required to be operable for these three areas is two. In the case of a monitor failure in the control room electrical auxiliary building area, a technical specification action statement requires that within one hour the control room envelope be isolated and the ventilation system be operated in the filtered recirculation mode. If a monitor failure occurs in the spent fuel pool area, fuel movement may proceed provided the fuel handling building (FHB) exhaust air filtration system is operated through at least one train of high-efficiency particulate air (HEPA) filters and charcoal absorbers. If a monitor failure occurs in the reactor containment building purge path, the containment purge supply and exhaust valves should be maintained closed. The licensee has committed to provide operating procedures to address the technical specification action statements in response to the monitor failures. The technical specifications require automatic ESF actuation on a high radiation signal from any monitor.

Deletion of the monitor failure logic will not affect the reliability of this system to respond to a high radiation release, but will reduce the number of unnecessary ESF actuations. Based on maintaining a one-out-of-two logic for radiation actuation, an action statement in the technical specifications requiring restoration of an inoperable system and the commitment to develop procedures to respond to monitor failures, the staff finds the modifications acceptable.

#### 4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on May 8, 1989 (54 FR 19618). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of the human environment.

#### 5.0 CONCLUSION

Based upon its evaluation of the proposed changes to the South Texas Project, Unit 1, the staff has concluded that: there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and 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. The staff, therefore, concludes that the proposed changes are acceptable, and are hereby incorporated into the South Texas Project Final Safety Analysis Report.

Date: May 8, 1989

Principal Contributors: C. Abbate  
H. Li



UNITED STATES NUCLEAR REGULATORY COMMISSIONHOUSTON LIGHTING & POWER COMPANYCITY PUBLIC SERVICE BOARD OF SAN ANTONIOCENTRAL POWER AND LIGHT COMPANYCITY OF AUSTIN, TEXASDOCKET NO. 50-498NOTICE OF ISSUANCE OF AMENDMENT TOFACILITY OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 8 to Operating License No. NPF-76 issued to Houston Lighting & Power Company which consisted of changes to the Final Safety Analysis Report and plant modifications related to the operation of the South Texas Project, Unit 1 located in Matagorda County, Texas.

The amendment is effective as of the date of issuance.

The amendment modified the Engineered Safety Feature Actuation System (ESFAS) logic such that failure of the control room/electrical auxiliary building ventilation radiation monitors, spent fuel pool radiation monitors and reactor containment building purge radiation monitors will be annunciated in the control room and only a high radiation signal would cause a heating, ventilation, and air conditioning (HVAC) Engineered Safety Feature (ESF) actuation.

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.

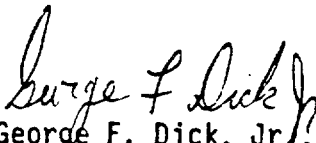
Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on September 12, 1988 (53 FR 35244). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment.

For further details with respect to the action see (1) the application for amendment dated February 24, 1988, (2) Amendment No. 8 to License No. NPF-76, and (3) the Commission's related Safety Evaluation and Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, 2120 L Street N.W., Washington, D.C., and at the Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488 and the Austin Public Library, 810 Guadalupe Street, Austin, Texas 78701. 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 Reactor Projects III, IV, V and Special Projects.

Dated at Rockville, Maryland this 8th day of May 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

  
George F. Dick, Jr., Project Manager  
Project Directorate - IV  
Division of Reactor Projects III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation