

March 14, 1995

Mr. William T. Cottle  
Group Vice-President, Nuclear  
Houston Lighting & Power Company  
South Texas Project Electric  
Generating Station  
P. O. Box 289  
Wadsworth, Texas 77483

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - AMENDMENT NOS. 72  
AND 61 TO FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80  
(TAC NOS. M91724 AND M91725)

Dear Mr. Cottle:

The Commission has issued the enclosed Amendment Nos. 72 and 61 to Facility Operating License Nos. NPF-76 and NPF-80 for the South Texas Project, Units 1 and 2 (STP). The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated March 9, 1995.

The amendments revise the reference in TS 6.9.1.6.b to the analytical method used to determine the heat flux hot channel factor for TS 3.2.2.

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

Sincerely,

Original signed by:  
Thomas W. Alexion, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498  
and 50-499

- Enclosures: 1. Amendment No.72 to NPF-76
- 2. Amendment No.61 to NPF-80
- 3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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

Sincerely,

A handwritten signature in cursive script that reads "Thomas W. Alexion".

Thomas W. Alexion, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498  
and 50-499

Enclosures: 1. Amendment No. 72 to NPF-76  
2. Amendment No. 61 to NPF-80  
3. Safety Evaluation

cc w/encls: See next page

Mr. William T. Cottle  
Houston Lighting & Power Company

South Texas, Units 1 & 2

cc:

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UNITED STATES  
NUCLEAR 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. 72  
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 March 9, 1995, 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.

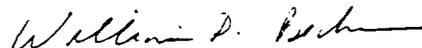
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 72, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance to be implemented prior to the end of the Unit 1 fifth refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



William D. Beckner, Director  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the  
Technical Specifications

Date of Issuance: March 14, 1995



UNITED STATES  
NUCLEAR 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. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 61  
License No. NPF-80

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 March 9, 1995, 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.

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\*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.

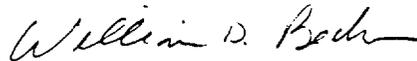
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 61, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance to be implemented prior to the end of the Unit 1 fifth refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



William D. Beckner, Director  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the  
Technical Specifications

Date of Issuance: March 14, 1995

ATTACHMENT TO LICENSE AMENDMENT NOS. 72 AND 61  
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80  
DOCKET NOS. 50-498 AND 50-499

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

REMOVE

6-22

INSERT

6-22

## ADMINISTRATIVE CONTROLS

### MONTHLY OPERATING REPORTS

6.9.1.5 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the Director, Office of Resource Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator of the Regional Office of the NRC, no later than the 15th of each month following the calendar month covered by the report.

### CORE OPERATING LIMITS REPORT

6.9.1.6.a Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle, or any part of a reload cycle for the following:

1. Moderator Temperature Coefficient BOL and EOL limits, and 300 ppm surveillance limit for Specification 3/4.1.1.3,
2. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
3. Control Bank Insertion Limits for Specification 3/4.1.3.6,
4. Axial Flux Difference limits and target band for Specification 3/4.2.1,
5. Heat Flux Hot Channel Factor,  $K(Z)$ , Power Factor Multiplier, and  $(F_{xy}^{RTP})$  for Specification 3/4.2.2, and
6. Nuclear Enthalpy Rise Hot Channel Factor, and Power Factor Multiplier for Specification 3/4.2.3.

The CORE OPERATING LIMITS REPORT shall be maintained available in the Control Room.

6.9.1.6.b The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

1. WCAP 9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY", July, 1985 (W Proprietary).

(Methodology for Specification 3.1.1.3 - Moderator Temperature Coefficient, 3.1.3.5 - Shutdown Rod Insertion Limit, 3.1.3.6 - Control Bank Insertion Limits, 3.2.1 - Axial Flux Difference, 3.2.2 - Heat Flux Hot Channel Factor, and 3.2.3 - Nuclear Enthalpy Rise Hot Channel Factor.)

- 1.A. WCAP 12942-P-A, "SAFETY EVALUATION SUPPORTING A MORE NEGATIVE EOL MODERATOR TEMPERATURE COEFFICIENT TECHNICAL SPECIFICATION FOR THE SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNITS 1 AND 2."

## ADMINISTRATIVE CONTROLS

### CORE OPERATING LIMITS REPORT (Continued)

(Methodology for Specification 3.1.1.3 - Moderator Temperature Coefficient)

2. WCAP 8385, "POWER DISTRIBUTION AND LOAD FOLLOWING PROCEDURES TOPICAL REPORT", September, 1974 (W Proprietary).

(Methodology for Specification 3.2.1 - Axial Flux Difference (Constant Axial Offset Control).)

3. Westinghouse letter NS-TMA-2198, T.M. Anderson (Westinghouse) to K. Kniel (Chief of Core Performance Branch, NRC) January 31, 1980 - Attachment: Operation and Safety Analysis Aspects of an Improved Load Follow Package.

(Methodology for Specification 3.2.1 - Axial Flux Difference (Constant Axial Offset Control). Approved by NRC Supplement No. 4 to NUREG-0422, January, 1981 Docket Nos. 50-369 and 50-370.)

4. NUREG-0800, Standard Review Plan, U.S. Nuclear Regulatory Commission, Section 4.3, Nuclear Design, July, 1981. Branch Technical Position CPB 4.3-1, Westinghouse Constant Axial Offset Control (CAOC), Rev. 2, July 1981.

(Methodology for Specification 3.2.1 - Axial Flux Difference (Constant Axial Offset Control).)

5. WCAP-10266-P-A, Rev. 2, WCAP-11524-NP-A, Rev. 2, "The 1981 Version of the Westinghouse ECCS Evaluation Model Using the BASH Code", Kabadi, J.N., et al., March 1987; including Addendum 1-A, "Power Shape Sensitivity Studies," December 1987 and Addendum 2-A, "BASH Methodology Improvements and Reliability Enhancements" May 1988.

(Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor.)

- 6.9.1.6.c The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.
- 6.9.1.6.d The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk, with copies to the Regional Administrator and Resident Inspector.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NOS. 72 AND 61 TO  
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80  
HOUSTON LIGHTING & POWER COMPANY  
CITY PUBLIC SERVICE BOARD OF SAN ANTONIO  
CENTRAL POWER AND LIGHT COMPANY  
CITY OF AUSTIN, TEXAS  
DOCKET NOS. 50-498 AND 50-499  
SOUTH TEXAS PROJECT, UNITS 1 AND 2

1.0 INTRODUCTION

By application dated March 9, 1995, Houston Lighting & Power Company, et. al., (the licensee) requested changes to the Technical Specifications (Tss) (Appendix A to Facility Operating License Nos. NPF-76 and NPF-80) for the South Texas Project, Units 1 and 2 (STP). The proposed amendments would revise the reference in TS 6.9.1.6.b to the analytical method used to determine the heat flux hot channel factor for TS 3.2.2.

2.0 EVALUATION

The licensee is requesting a change to update the referenced analytical methods, to the BASH code, for the heat flux hot channel factor used in determining core operating limits. The use of the BASH code was addressed and approved by the NRC staff in the Safety Evaluation that supported Amendment Nos. 61 and 50 for STP (issued on May 27, 1994) to accommodate an upgrade of the fuel used in the STP reactors to Westinghouse VANTAGE 5 Hybrid (V5H) design.

TS 6.9.1.6.a states that core operating limits shall be established and documented in the Core Operating Limits Report before each reload cycle for certain listed parameters. TS 6.9.1.6.b states that the analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in certain listed analytical methods. Updating the list of analytical methods in TS 6.9.1.6.b, to the BASH code, is acceptable because it reflects the currently approved methodology. This ensures that plant operation continues to be limited in accordance with the values of cycle-specific parameter limits that are established using NRC-approved methodologies. Therefore, this change is acceptable.

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### 3.0 EMERGENCY CIRCUMSTANCES

The Commission's regulations in 10 CFR 50.91 contain provisions for issuance of amendments with less than a 30-day comment period if emergency circumstances are determined to exist.

Emergency situations involved those cases in which failure to act in a timely way results in the derating or shutdown of a nuclear power plant or prevents either resumption of operation or increase in power output up to the plant's licensed power level. Under emergency circumstances, the Commission may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment. In such a situation, the Commission publishes a notice of issuance under 10 CFR 2.106, providing for opportunity for a hearing and for public comment after issuance.

For emergency circumstances, the licensee is required to explain the reason for the condition and why it could not be avoided. This requirement is intended to prevent the abuse of the special provisions of 10 CFR 50.91(a)(5).

The reason for the condition is that the licensee discovered that the list of analytical methods used to determine the core operating limits in TS 6.9.1.6.b was not updated to reflect the methods approved by the NRC staff to accommodate an upgrade of the fuel used in the STP reactors to Westinghouse VANTAGE 5 Hybrid (V5H) design. The V5H license amendments were issued on May 27, 1994 (Amendment No. 61 for Unit 1 and No. 50 for Unit 2), with a requirement for implementation prior to the end of the Unit 1 fifth refueling outage. The licensee is currently in this refueling outage.

The licensee explains that the March 9, 1995, request must be approved on an emergency basis, on or before March 14, 1995, to prevent the delayed return to power of Unit 1 following the outage. This date is necessary to allow the previously established schedule for implementation of Amendment Nos. 61 and 50 to proceed in a logical, preplanned and methodical manner. The licensee also explains that a delay in approval of this change would impact implementation of Amendment Nos. 61 and 50 and necessitate submitting a request to provide separate TS pages for each unit, write separate requirements to implement the different requirements on each unit, and require the preparation, review and implementation of another submittal to make the requirements on both units the same when the change is implemented on both units. This emergency change will allow the licensee to implement previously approved Amendment Nos. 61 and 50 in a controlled and deliberate manner within the implementation requirements specified by the NRC staff in the amendments.

Based on the licensee's reasons regarding preventing the delayed return to power of Unit 1 following the outage, the NRC staff's previous approval of Amendment Nos. 61 and 50 requiring implementation on both units prior to the end of the Unit 1 fifth refueling outage, and the potential disruption of safe, controlled operation of either unit if this emergency request is not approved, the staff finds the licensee reasons to be acceptable.

Based upon the above considerations, the staff concludes that there are emergency circumstances present that warrant issuance of the amendments pursuant to 10 CFR 50.91(a)(5).

#### 4.0 NO SIGNIFICANT HAZARDS CONSIDERATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated. The updating of analytical methods used to determine core operating limits does not affect accident initiators or precursors. It also ensures that the systems designed to mitigate the consequences of an accident are set to operate consistent with the values of cycle-specific parameter limits that are established using NRC-approved methodologies.

Operation of the facility in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. The updating of analytical methods used to determine core operating limits does not affect the method of plant operation. It does not introduce any new systems or system interactions that would affect plant operation.

Operation of the facility in accordance with the proposed amendment will not involve a significant reduction in a margin of safety. The updating of the analytical methods used to determine core operating limits ensures that plant operation continues to be limited in accordance with the values of cycle-specific parameter limits that are established using NRC-approved methodologies. These limits ensure that safety margins are preserved.

Based on the above considerations, the staff concludes that the amendments meet the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendments do not involve a significant hazards consideration.

#### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendments. The State official had no comments.

## 6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve 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 made a final no significant hazards consideration determination with respect to this amendment. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). The amendments also change recordkeeping, reporting, or administrative procedures or requirements. Accordingly, with respect to these items, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 7.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: T. Alexion

Date: March 14, 1995